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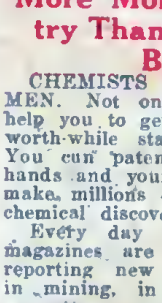

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July

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"THE PLANET OF DESPAIR"
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"THE CITY OF SINGING FLAME"
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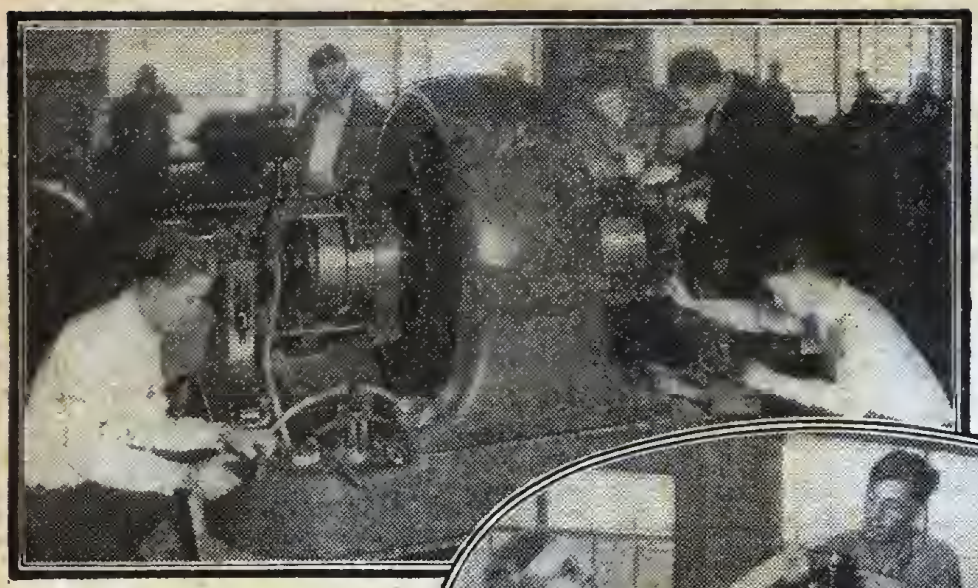

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THE MAGAZINE
OF PROPHETIC FICTION

Vol. 3, No. 2 — July, 1931

TABLE OF CONTENTS

ON THE COVER this month, from Clark Ashton Smith's "City of Singing Flame", we see the strange monstrosities, inhabitants of a land unknown to our heroes, getting ready to plunge themselves into the flame's heart. Our two visitors into this strange dimension are barely able to keep themselves from yielding to the flame's irresistible lure.

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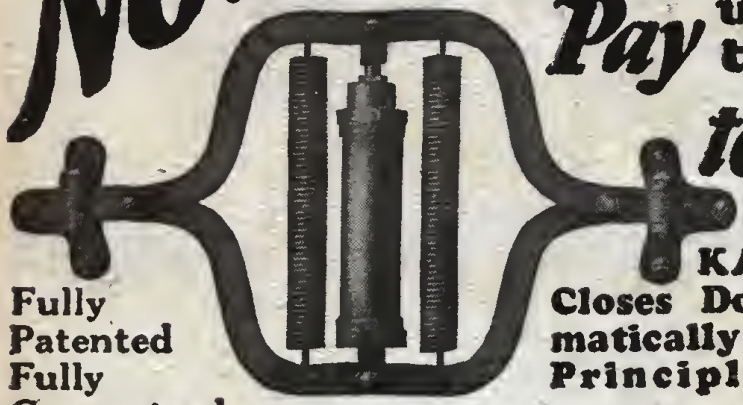

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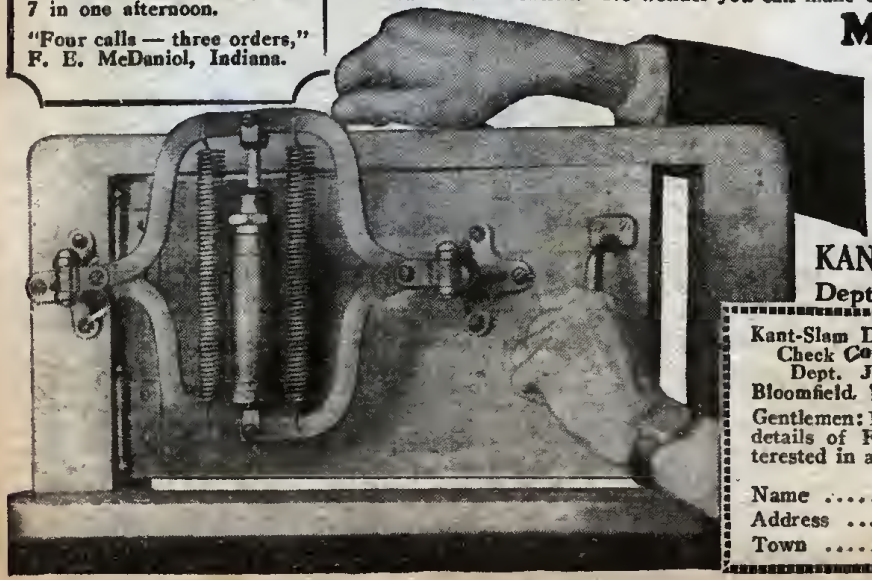

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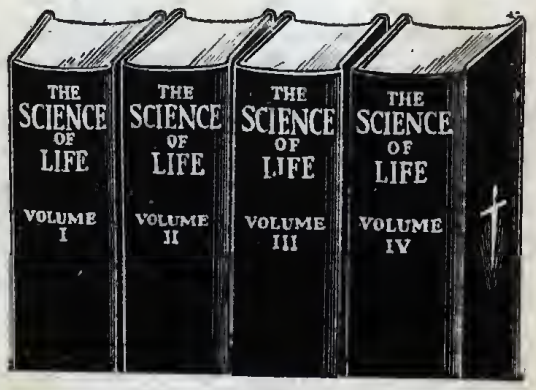

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No. 2

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JULY
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WONDERS OF THE MACHINE AGE

By HUGO GERNSBACK

IT is a curious failing of the human race, that it has never been able to look to the future and to apply the lessons of past history to its own benefit. Yet, we all know that the future is made by the past; and the trite saying, "History repeats itself," is a proved fact

At the present time, when humanity finds itself in the throes of a world-wide depression, everybody is looking for light on the subject; and people ask themselves what is the cause of the depression, and particularly of unemployment.

Of late, a certain school of thought has cried persistently that all our present troubles, particularly unemployment, are directly traceable to our "Machine Civilization." This attitude has been taken up by many economists and indeed, many so-called industrialists; and many books have been written on the subject. By reading this abundant literature, the reader very often will come to the conclusion that there must be something in their beliefs and that, indeed, the "machine monster" is beginning to swallow humanity and, pretty soon, we will be all at the mercy of the machine.

We need not get very excited about the statements of these "authorities"; because in the past it has been found that many authorities were usually wrong in their outlook on the future. Only about 25 years ago one of our greatest economists made the statement that by this time (that is, around 1930) there would not be enough wheat grown to keep the world's population from starving. Everybody can see the foolishness of that statement, because we have today more wheat than we have ever had.

Twenty years ago, an internationally-known scientist predicted that by 1925 the available petroleum would be exhausted. Yet, in 1931, we find the price of petroleum falling because we have too much of it.

When the automobile first came along, experts all over the world told us that it was the death-knell of the horse. Yet, in the United States in 1922 more farm horses were living and in service than there were before the advent of the automobile in 1900. (1900—18,267,000. In 1922 — 18,564,000.) Since then horses have declined somewhat, but the automobile will never make the horse extinct.

Then, it was confidently predicted also that the automobile was putting the railways out of business; and there are, even today, many authorities who still believe these fairy tales when, as a matter of fact, the railways are continually gaining ground and are now using the auto truck themselves as a valuable adjunct to their business!

In the early '30's, a well-known Patent Examiner in Washington threw up his job because he had become convinced from his studies that everything worthwhile had been invented, and that there was no future for him in the Patent Office. That was before the day of the telephone, the X-Ray, the automobile, the airplane, radio, and thousands of other inventions made in the last sixty years. Yet, here was an expert in his line who could not see further than his nose, but he was certain that he was right; otherwise he would, of course, not have made such a colossal fool of himself.

(*Continued on Page* 284)

STATEMENT OF POLICY

IN the present editorial, Mr. Hugo Gernsback not only sets forth an interesting discourse on the Machine Age but, at the same time, dispels a number of erroneous views held by various so-called authorities.

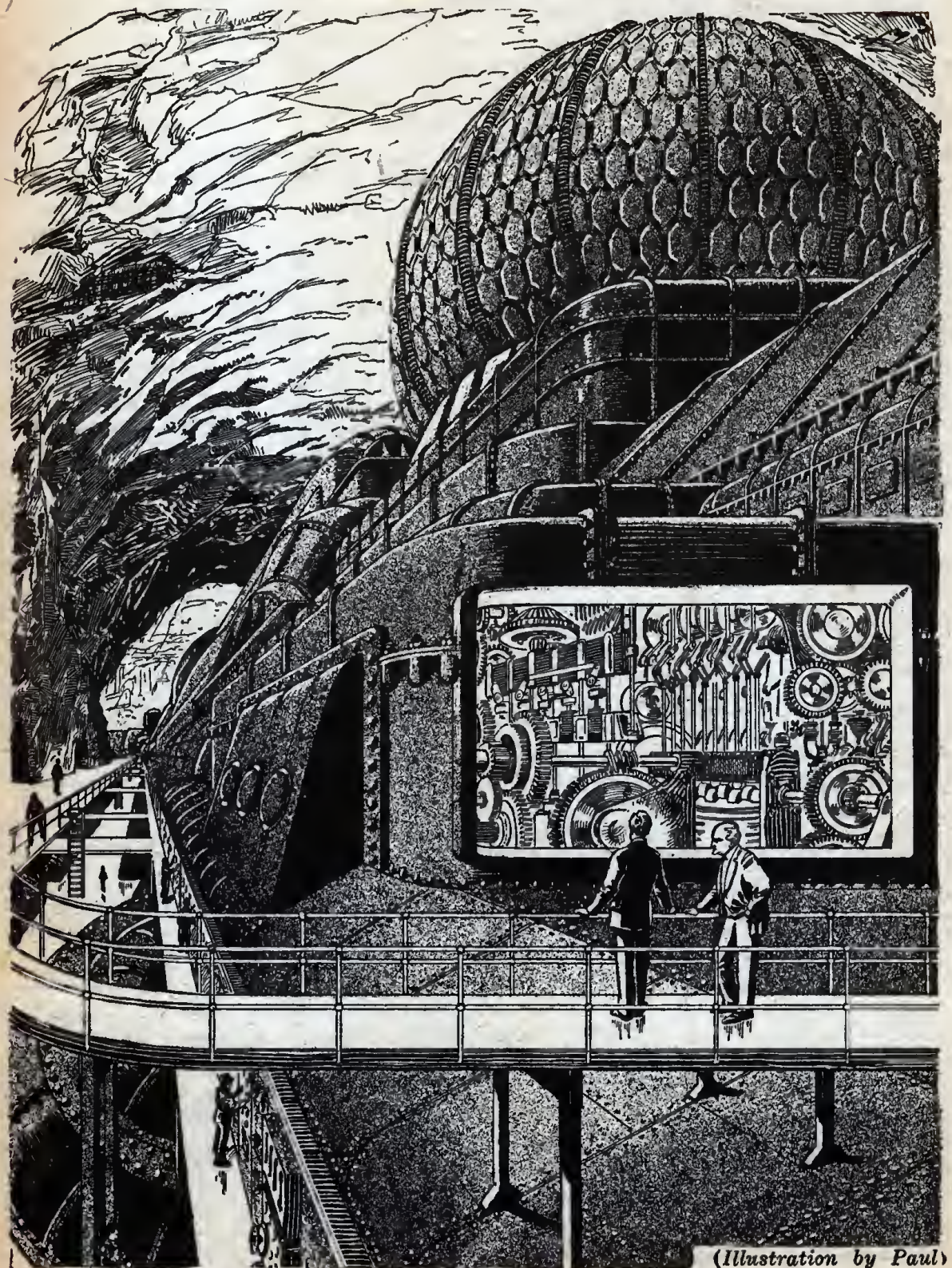
Incidentally, the subject is intimately linked with Science Fiction, and we know that it will be of more than passing interest to our readers.

We would very much like to learn from our readers how they feel on this important subject.

THE PUBLISHERS.

The Time Projector

By David Lasser and Dr. D. H. Keller



(*Illustration by Paul*)

The body of the monster was filled with an enormous number of delicate pieces of mechanism, like the works of a gargantuan watch.

CAROL DUNFREY was the richest bachelor in the world, but no one would have suspected it by looking at him. He accepted his wealth just as he did the sunshine and his glorious health and thanked all those who refrained from reminding him of them. Neither his stocks and bonds nor his real estate had been able to secure him happiness or keep from his life the sorrow that come to all from the death of loved ones.

His father, Frank Dunfrey, had died suddenly three months before from angina pectoris. His mother survived his father only a few weeks; and though the physicians had diagnosed her case as myocarditis, Carol knew that it was really caused by grief.

Both parents gone within a month! No relatives left, not even a sister or cousin. Frank Dunfrey had left behind him the Dunfrey millions and only one person to use them. Naturally more than one eligible young lady anxiously awaited the end of the period of mourning when Mr. Carol Dunfrey would again return to New York society.

Carol ate dinner this evening in a decided depression. The butler told the cook that unless something happened the Master would starve to death, whereupon the cook told the butler that if that happened they might as well order a funeral for two, because if they could not make him eat, they might as well all die and be done with it. Peter Pimpkins, Carol's valet, eating with his usual hearty appetite, overheard the conversation, and determined to see what could be done about it.

He awaited Carol in the latter's room.

"Are you changing for the opera tonight, sir?" he asked.

"You know I have not been to the opera for four years."

"May I suggest a brisk walk up the Drive?"

"I am staying at home tonight, Pimpkins."

"Do not think that I am bold, sir, but you should get out more. Patrick tells me that you would not even let him cut the steak this evening, and took only one oyster."

"Patrick was correct, and it was a small oyster. But the food was not wasted, Pimpkins. The food, I am sure, was not wasted."

"You are right, sir. The oysters were delicious and the steak could not be surpassed, but that does not keep *you* alive, sir."

"I think that I am still alive."

"But we are afraid of the future. May I suggest a little music with your meals? I was reading an article the other day of the effect of music on milk production and it seems the cows do much better on classical music than jazz—"

"But I am not a cow."

"You have a very fine suit, sir, which you have never worn. A quiet blue, with a little white stripe. It is an excellent dress for the morning. Perhaps a brisk walk tomor-

WE take great pleasure in presenting to our readers this original and intensely interesting story from the pens of Dr. Keller and our managing editor. Without praising it unduly, we believe that it strikes out into a field of science fiction that has been left somewhat untouched—and that is the vivid portrayal of the effect of a monster invention on human life.

We all know the feeling of the terrific confusion of our lives, that assails us every so often. We feel as though we were caught in a whirlpool of events, and instead of being the "masters of our fate" we are the veriest pawns of unknown, uncontrollable destiny.

From this lack of control, our great unhappiness springs. But what if we could control our destinies, and avoid the pitfalls of errors that plunge us into misery, and bring us face to face every day with death and desolation? That thought, this absorbing story deals with in a grim, realistic and convincing manner. We commend it to our readers.

row morning would be stimulating to your appetite."

Carol opened his wallet and took out a twenty dollar bill.

"You are a perfect valet. Perhaps, at times you are too perfect. I believe that you can wear my clothes to perfection. Will you please dress for a show and supper afterwards and enjoy yourself at my expense. On second thought I will add extra bills for Patrick and two ladies you may happen to know. Perhaps the housekeeper and the first maid will join you."

"You are too kind, sir. Your generosity—"

"It is not generosity, Peter, it is simply a desire to spend the evening alone. I want to think."

"But we would not intrude."

"Not deliberately. But you would remain up to help me retire, and Patrick would remain up to serve me in case I coughed or dropped my handkerchief and the housekeeper and the first maid would stay up to talk over old times and gossip as to who will be the next lady in this great house. And though I sit alone in the library I would feel all of you present and I would know that all of you would be unhappy because I am unhappy. So I want you to go out and have a good time."

"Your parents were fine to us all, sir." Pimpkins said irrelevantly.

"They were kind to everybody. But I think that you had better go, Peter," observed Carol. "The ladies will want to dress for the show, and when you come back please walk quietly because I do not want to be disturbed—and Peter!"

DAVID LASSER

DAVID H. KELLER, M.D.

"Yes, sir."

"How old was I when you started to work for father?"

"You were just a little boy, sir, I believe."

"I wish I were a little boy tonight, Peter."

ALONE in the library, comfortable in his reading jacket, Carol Dunfrey slowly opened an envelope. For a moment he hesitated in removing and inspecting the piece of paper that it held.

"But I guess it is time to be serious," he thought fingering the envelope. He noted his father's writing, "TO BE OPENED THREE MONTHS AFTER MY DEATH."

"It must be a special message for me. Something that he did not wish to put in the book of memoranda he left garding his business enterprises. It must be something serious. Odd. No name for it.

"At times father made me feel that his most important business in life was something that nobody knew anything about. Yet why should he have been so secretive? And did mother know? Yes, she must have, for at times I felt that both of them had something terrible weighing on them, that no one else in the world could know."

Carol, sighing, removed the paper from the envelope and unfolding it carefully smoothed the creases. He looked at the heading, "My dear son," and then at the signature, "Your loving father, Frank Dunfrey."

Then he settled himself in his chair, put

the paper in a good light and began to read the message. It was brief.

"My dear son:

As soon as you can, after reading this letter, visit Henry Booth. It is the desire of your parents that you devote your time and resources to assisting this man in every way possible. As soon as you are ready to see Booth, phone Manhattan 6384 and simply tell whoever answers that you are Carol and that you want help. The man you speak to will advise you. After seeing Booth return to New York and ask the President of the Dunfrey National Bank for a letter from me. Your work in this matter will be of the greatest service to mankind. I will not live to see its completion but I want you to carry on.

Your loving father,
Frank Dunfrey."

Carol read the letter over three times before he replaced it in the envelope. He indulged in a habit which came from his years of solitude and talked it over to himself.

"Now who would have thought that good old, sensible Dad would have gone in for mystery stuff like that? He wants me to see a man by the name of Booth, and says that by helping him I can be of the greatest service to humanity.

"To humanity . . . . "

The word had a curious sound to Carol. Ever a student, immersed in art and literature from his boyhood days, he found himself at twenty-four almost entirely ignorant of the great bustling world about him.

Humanity meant generally the mobs of people who composed the great cities; and from them and their feverish activity, Carol had always shrunk.

Now, together with the burdens of administering his vast estates, there had come this curious enigmatic letter with the strange words, "service to humanity."

Carol got up and paced the room restlessly. He loved his father too much to ignore the request entirely, yet he shrank from what it might mean to comply with it. He had planned to turn the care of his interests over to Bowden, president of the Dunfrey National, and then to travel for two years into odd corners of the earth—perhaps with Joan—

Now this thing had intruded itself—But his father's wish. Impulsively he reached for a telephone.

"Manhattan 6384, please."

After a moment came a cool, polite masculine voice: "Yes?" Carol bit his lip.

"This is Carol, and I want help."

A Mysterious Message

THERE was a trace of suppressed excitement in the voice of the stranger when he said, "Yes . . . . Mr. Carol . . . when can I meet you?"

"Why?" asked Carol surprised. "I don't understand it at all."

The man's voice was now cool and inexorable. "I believe you want help?"

"Yes, of course," Carol protested. He saw that he must blindly follow this thing out. "I will meet you any time you say."

"Very good," came the voice. "In a half hour, in front of the lion at the northern part of the steps of the Public Library on Fifth Avenue. I will carry a malacca cane and my name is Green. Please come alone."

Before Carol had an opportunity to protest there came the warning click of a receiver dropped and the buzzing of the phone.

Carol rang for his chauffeur. "The racer, Tom. I will drive it."

Five minutes later he was speeding down the drive.

As he crossed Seventy-second Street to enter Central Park, he found himself suddenly caught in a maze of traffic blocked by hundreds of people trooping into the Park by all entrances. It was fully five minutes before the line of cars moved on.

As Carol passed the traffic officer, the latter's reddish face lit up with pleasure. "And good even' to you, Mr. Dunfrey? They're all crazy, be gorry." He nodded enigmatically toward the thousands who now seemed to be storming through the Park. But Carol had whizzed by, and was soon deep in the tunnel that connected the west side of the city with Fifth Avenue.

It was precisely thirty-five minutes after he had dropped the receiver in his room, when he stopped his car in front of the library on Fifth Avenue. In the shade of the lion who guarded, with his stone bulk, the eastern entrance to the building, he saw a young man, leaning idly against the wall, swinging a cane.

Carol approached the figure.

"Mr. Green?"

The man who had appeared not to notice the approach, looked up suddenly. "Yes," he answered in his insinuating cool way.

Dunfrey flushed. "I'm Carol."

Green nodded and then pointed his cane toward the car. "Can we take a spin?"

"Yes, of course." Carol led the way to the car, and at the wheel looked questioningly at his companion.

"Any place in particular?"

"Let's say, up the Avenue. I won't take long."

There was a moment of silence as the car moved smoothly through the almost deserted street. It was with a shock that Carol realized how empty the street was. He remembered suddenly the crowds at the Park.

"Is there a celebration of some sort?" he asked Green, to begin the conversation.

Green tapped his feet with his cane. "Hardly," he answered shortly; but went on. "Mr. Dunfrey, if you want to see Booth please follow these instructions."

Dunfrey interrupted. "But I don't understand all this—who is Booth?"

"I don't know," answered Green, frankly. "All that I can do is to tell you how to get to him."

"Pardon me," Carol stated. "I was simply curious."

"Now then for the details," Green went on briskly. "Can you fly a plane?"

"I practically grew up in one," Carol smiled.

"Then you leave New York when you are ready and fly to Washington. From Washington take the St. Louis air route. Two hundred and ten miles west of Washington turn due south for seventy-three miles. You will find yourself then above the heart of the Blue Ridge of West Virginia. At that point you will connect your televisor for broadcasting, and you will receive further instructions.

"If you are followed by another plane, keep on going, circling about until there is no longer a plane in sight. It is understood that you are to reveal nothing of this to anyone."

"Very well," Carol sighed, "though it sounds like a Phillips Oppenheim novel."

Green smiled. "Perhaps. But we must put nothing of this on paper. I suppose you can remember it. When you are ready to leave, telephone me at Manhattan 6384. If I do not answer, you will be told where I can be found."

"So that is all you want to tell me?"

Green nodded. "I will get off here."

Carol drew up to a curb, took Green's proffered hand and watched the young man walk jauntily across a side street.

CHAPTER II

The Pictures on the Cloud

CAROL drew a deep breath. The adventure, whatever it was, whatever it contained of dime-novel mystery and thrills had begun. Out of his cloistered student's life, he had suddenly been precipitated into some intrigue whose nature he could not possibly fathom.

As he continued slowly up the Avenue, he turned over in his mind, in amazement, what it could be that caused his father to be linked up with what seemed like a cheap adventure. And his mother . . . . suddenly he remembered one day when he had been walking in the garden with her. It was a week after his graduation from Yale, and he seemed very close to her. She had taken his arm and said earnestly, "Carol, if you ever have the chance I want you to be very good to Henry Booth and help him."

Before he could remonstrate she had changed the subject, as though she had already said too much, and had never spoken of it again. What could it all mean?

Carol had reached the Park and turned into the driveway, moving along slowly. Taken from his reverie he noticed suddenly

the throngs of people walking quickly toward the center of the Park, talking eagerly and looking skyward. Carol paid them little attention until, at a crossing, his car was halted by the never-ending throngs that streamed across the road. He followed their skyward glance and saw at last that all eyes were directed at a white puff of cloud that floated slowly over the Park—a cloud marring an apparently cloudless sky.

"Has it begun?" he heard someone ask.

"It's all over," another answered.

"I hope not," said a third," I came all the way from Jersey to see it."

Finding his passage through the crowds blocked, Carol at last turned back and parked his car at the roadside. Then absorbed by curiosity he allowed himself to be pushed along afoot by the hurrying throngs.

The main movement seemed directed in a line with the motion of the curious cloud. Carol, though no student of science, could not help be stirred to wonder by this flawless puff of white, some three hundred feet long, that slowly floated through the night sky barely above the tops of the trees. It seemed to move with an animation and purposefulness all its own.

Carol looked about at the faces of the people in the madly moving flood. All faces seemed eager, excited, breathless, fearful, as though they were about to experience a thrilling yet terrifying sight.

Carol could not help but capture this queer emotion. He touched the arm of one man.

"What is it all about?"

The man eyed him curiously and then pulled away in haste. "The pitchers," he shouted, and then he had gone ahead and was lost in the crowd.

Carol was now thoroughly tired of it all and tried to elbow his way out of the throng. But his movements excited anger, in thus disturbing the onrushing flood. He finally gave it up and allowed himself to be pushed along.

From other pathways, streaming across the green, from the automobile roads other streams moved on, an irresistible movement of thousands toward some unknown goal. From ahead, the chatter of thousands was now becoming louder, and occasionally there would come a loud strident voice and then a cheer. There seemed to be a huge gathering further on, and toward that gathering his own stream was evidently directed.

"Radical agitation!" flashed through Carol's mind, and at once he visualized bearded men loudly berating muttering thousands to revolt against their masters; he saw the charge of the police and blood and broken heads everywhere. Carol felt inwardly sick and once more attempted to elbow his way from the crowds. But now his own stream had been joined by others until they presented an unbroken front across the park as far as he could see.

The voices ahead were becoming louder and louder, the cheering and calling more insistent, until finally on turning across a path, Carol at last perceived an immense open green into which were packed tens of thousands of people. All eyes were directed upward where, just beyond them, now floating motionless, was the strange cloud.

As Carol watched, now in fascination, a change seemed to be taking place in the cloud. A faint glow was suffusing it as though a strong unseen light had been directed upon and through it. At once the noises from the crowd ceased. Ten thousand voices were instantly hushed and a profound silence, that stirred Carol to the depths, reigned over the vast field.

The glow of the cloud seemed to become more and more intense, and parts of the surface were blurred, as though a dirty smudge has been rubbed over it. But the blur was dissolving into separate parts, until finally to Carol's amazement a picture took shape on the face of the cloud! It showed the calm bosom of the ocean and upon its surface streaming toward them was a great steamer. Its pace was evidently furious, it seemed literally to eat up the watery spaces. As it came closer, its six funnels puffing smoke, one member of the crowd shouted, "Why it's the new *Pride of California*, biggest thing afloat." Finally from the center of the ship there

came a soundless burst of white smoke, a great pillar of flame. The ship rocked slightly, and then like a wounded dog, turned slowly on its side to settle deep into the water. The whole event had taken but a few minutes, until the great liner with one end suddenly upturned, disappeared beneath the waves.

For a moment the crowd seemed stunned. Then like the uneasy coming of the tornado, there was loud laughing and yelling, swearing and shouting. From all parts of the dense throng, the uneasy passions of those who had just witnessed a terrible catastrophe were raised against some unknown malignant force that had overtaken the steamer.

THE picture had disappeared from the cloud and only the glow of the intense light from some invisible source remained.

For a time the uproar of the crowd continued, and the tension of the past moments gave way to sudden desire for movements of groups through the crowd. Carol was pushed this way and that until finally he found himself thrown against a woman in front of him.

"Beg pardon!" he muttered, as the woman turned angrily. But then his face lit with pleasure.

"Joan! You here!"

"Why, Carol, of all men!" The young woman took his arm.

"Oh, wasn't it horrible!" she nodded toward the cloud. Her face was sad and serious, yet intelligent and forceful.

"But I don't understand," Carol said confused. "What was it?"

Joan allowed her usually serious expression to relax into a playful smile.

"Oh I might have known, you are ignorant of what goes on in your world. Haven't you read about the prophetic pictures?"

"Prophetic? But come, can't we get out of this?"

Joan pulled at his arm. "No, wait a few minutes. There's one more showing tonight. That is if they keep to the same schedule."

"But who are they?" Carol asked. "Is the whole world mad?" But before Joan could answer his question, the crowd had suddenly grown silent, for the cloud was again blurred and a picture gradually forming.

It was a city street, in an exclusive residential neighborhood. From a large imposing house a portly man emerged quickly. As he walked toward the curb, he suddenly clasped a hand to his heart, swayed and fell heavily to the street.

"Walter Billings!" the shout went up on every side.

"Is he dead?" one cried.

"No, but he will be!" another shouted, laughing.

There were again loud confused shouts, a virtual din so great that Joan clapped her hands to her ears. The crowd were now moving quickly to the park exits, again an irresistible but purposeless movement, and in its tide Carol and Joan were caught. As they were hurried along, Carol had barely a chance to see the cloud moving swiftly through the sky, receding in the distance until it was lost to sight.

Again on the street and able to move at will, Carol led Joan to his parked car where they seated themselves breathlessly.

"Whew!" Joan exclaimed. "The power of the people is felt at last." She slumped back, exhausted. "Take me home, please."

Maneuvering through the streams of people, Carol at last reached the upper part of the avenue, turned west to the Drive and sped along its upper reaches toward the home of Joan at Hastings-on-the-Hudson.

CHAPTER III.

How It Happened

SOON the city was left behind, as the car sped through the little villages dotted by great spacious estates, that lined the river. Joan was silent, immersed in thought and Carol, with questions bursting for expression, did not intrude.

It was good enough to have Joan here with him, and to play the role of protector to her against the unruly mobs they had escaped from.

One sentence escaped her as they climbed the long hill leading into Hastings.

"So, Walter Billings!"

If this were not the cool sane Joan beside him, Carol would have believed that the whole of the events of the evening, from the enigmatic letter of his father, to the mysterious Green, the cloud pictures and the devastating mobs, were the outbursts of a world gone suddenly mad.

As he drove carefully through the roadway in the Blake estate, Joan suddenly awakened. "You'll come in for awhile?"

Carol nodded, and when they had reached the doorway he helped her out and followed her into the house.

Noticing a light in the great living room, Joan entered, Carol following.

At the further end near the opened window, William Blake, Joan's father, sat reading. He looked up as they entered.

"See whom I've found, Dad."

Blake was a noted attorney, a member, Carol knew, of the Dunfrey group of interests. It had been through his father's business connections with Blake, that he had met Joan. He had not seen Blake since his mother's funeral.

"How are you, Carol?" Blake asked sympathetically. He was a big, ruddy man with Joan's grave penetrating eyes.

"Very well," Carol shook the offered hand.

They all sat down, and tea was brought.

"Well, what did you see?" Blake addressed his daughter.

Joan's face clouded. "The new *Pride of California* blew up, daddy, and Walter Billings died suddenly on the street."

Blake rose suddenly, "What! It can't be true. Why these things are horrible!"

"But true," Joan reminded gently. She turned to Carol. "But I see you don't understand."

Carol shook his head hopelessly.

Joan settled in her chair. "Two weeks ago," she began, "people were amused to find one morning all over the city, notices of so-called cloud pictures to be shown above the mall of Central Park that night. The notices were in the form of posters on walls, pamphlets left on doorsteps, little sheets handed out by boys, who didn't know who hired them . . . . notices in the newspapers . . . . "

"Inserted by unknown scoundrels," Blake put in bluntly.

Joan gave her father a reproving look. "You must have been out of the city then," she continued to Carol. "But the city took it as a joke especially when the notices stated that these cloud pictures were preview showings as it were, of events to take place the next day. There followed a few words about the time and place, and then the cryptic last sentence, 'You shall know the truth and the truth shall make you free' . . . . "

"Humbug!" Blake grunted.

"Naturally, there was a large crowd at the Park that evening; laughing gayly, prepared for an entertainment of some strange, novel kind. Behind it, was evidently some publicity hoax, as newspapers believed, or some new stock swindle. But the pictures on the cloud, by some means that no one has yet discovered, showed a heavy rainfall in northern Michigan and the washout of a railroad track. A flyer from Chicago was derailed and many passengers killed . . . .

"Naturally, the scene of this tragedy sobered the audience, and puzzled them considerably, for this was not the entertainment they expected. There was a lot of muttering about why these scenes were permitted to be shown. But, Carol, believe me, I was there that evening, and it was all so uncanny and frightening, with that ghostly white cloud moving so purposefully across the Park, and then hanging above the Mall, with the pictures flickering across it and the silent frightened crowds. I came almost to believe in witchcraft . . . . "

"Or some new scientific humbuggery," Blake said angrily.

"I think you're right," Carol interrupted.

Joan shot an angry look at him. "Just wait and hear this!" she retorted. "The picture had disappeared from the cloud and then came another, one of Senator Buffing, you know, that great pompous gentleman who orates so magnificently about nothing

every so often—that gentleman known for his bigotry and intolerance. The picture showed the Senator being driven along a Virginia road. His car became stuck in the mud, and he got out indignantly, apparently to see why mere mud should retard a great statesman's progress. But just as he reached the rear wheel to remonstrate with the lowly mud, his chauffeur started the car and the great statesman was covered with the mud from head to foot.

"Everyone in the audience laughed at this, and when the picture finally disappeared and the cloud moved away, the people went home feeling that they had not been cheated after all . . . .

"But imagine everyone's surprise when both events were duly recorded in the newspapers two days later. The cloud pictures had predicted what would happen the day after they were shown!"

BLAKE had lost his satire. He shook his head. "A terrible power, if it exists . . . . "

"But daddy," Joan protested, "We know that it does exist . . . . we've, at least I have, seen pictures every other evening for two weeks now . . . . even the newspapers admit that someone has the uncanny power to predict what is to happen the next day."

Blake wiped his face with his handkerchief . . . . "A terrible power . . . . it's . . . . it's unbelievable . . . . "

"But let me go on . . . ." Joan said. "Every other night these pictures have been shown to greater and greater crowds who have been dropping their doubts and are being filled with the awe of this powerful force. As you saw, Carol, tens of thousands go there, to see and believe . . . ."

Carol shook his head . . . . "I can't believe it . . . . there must be a trick . . . ."

Blake got up and paced about the floor. "Frankly, I wish I could honestly feel that way, Carol. But I think Joan is right. The power of the thing is only too evident. The events that have been shown are too much a matter of natural forces, and are too widely separated to be the result of any trickery . . . . I shudder to think of it, but I must admit that in the hands of some man or men there exists the most terrible power that a human being ever wielded."

Carol nodded. "Terrible, yes . . . . isn't anything known of what is behind it?"

Blake shook his head. "Nothing at present. The government as usual, pretends that it knows nothing about it . . . . and that no such power exists. The newspapers treat it as a two weeks' sensation, warning their readers slyly that tomorrow surely the hoax behind it will be exposed . . . . But the business leaders are becoming worried. There's been a noticeable change in the public morale . . . . People are becoming excited, hysterical, undependable . . . there's a crack in our social organization that I can't help but attribute to this thing . . . ."

He stopped a moment to stare from the window, down to the silent gleam of the Hudson, a half mile away. Then he turned suddenly.

"I can't help but feel that this thing is destined to be more terrible than any one admits . . . . I can feel the working of a powerful intelligence behind it . . . . not precisely a malevolent intelligence but one that knows its power and is using it with a cunning shrewdness. What its aim is, I cannot pretend to guess . . . . But if I have the chance . . . . " Blake's powerful face tightened, and he clenched his fist . . . . "I'll smash this thing . . . ."

With a promise to accompany Joan to the next showing of the pictures, Carol left hastily and drove about the deserted roads aimlessly. It was only when dawn was breaking that he finally reached his home and dropped into his bed to an uneasy, dream-troubled sleep.

* * *

It was three in the afternoon when Carol was awakened by an insistent knocking on the door. His butler entered to Carol's sleepy, "Come in!"

"Mr. Blake has been trying to get you on the telephone since twelve," the man explained. "He insists on speaking to you now."

"Connect the extension here," Carol ordered.

In a moment he heard Blake's voice, trembling with excitement.

"I didn't want to disturb you," Blake's voice explained. "But I want you to attend a board meeting of the American Finance Company day after tomorrow. You know it's one of your directorates."

"I can't do it, Mr. Blake," Carol remonstrated. "You know, I don't intend to take an active part in the business."

"Yes, yes," Blake said impatiently, "but now you must." His voice was earnest, persuasive. "I've been a friend of the family for a long time, Carol, and I urge you to do this."

"But what has happened?" Carol said annoyed.

"The *Pride of California* blew up, you know; and now Walter Billings has been found dead on the street . . . ."

Carol sat bolt upright in bed, the memory of the last evening suddenly returning.

"You mean . . . . the cloud pictures."

"Precisely," Blake stated. "The news of the occurrence of both has come out and the stock market is in a panic. The *Pride of California* belonged to one of our affiliated companies, and Billings was one of our directors. It looks as though someone is hitting directly at us. Now, Carol, I want you to add your presence to our meeting and help to stabilize public opinion . . . . your name carries great weight . . . . and there are thousands of small investors whose funds are tied up in these enterprises . . . . we mustn't fail them . . . ."

"Very well," Carol said wearily, "when am I needed?"

"At ten, day after tomorrow . . . . the Finance Company Board room . . . . "

"I'll be there," Carol stated and hung up.

A Serious Step

IT was a very serious young man who sat at the director's table the appointed morning and looked around at his fellow directors. It was his first meeting, and though he knew the directors socially, he had never witnessed their more serious activities.

His thoughts and feelings were a confusion. He had accompanied Joan last night to witness again the cloud pictures and had seen the devastation by fire of the German city of Essen, and the picture of a well known society woman sitting wrapped in blankets in her elegant boudoir, sneezing ungracefully into a damp handkerchief, while her guests, including the Prince of Wales, danced below in her far-famed ballroom.

Both grim tragedy and bitter vulgar satire were blended in this showing, first frightening the vast multitudes who came there to see, and then releasing their tension by gales of hoarse laughter before they were sent to their homes.

Carol's indignation against the forces behind the pictures had widened a gulf between Joan and himself. For Joan's awe of the pictures was so great as to permit of no other emotion.

Now he sat next to her father. As the Chairman of the Board rose to open the meeting, Carol felt helplessly alone in a world that suddenly seemed gripped by a strange form of hysteria.

In the last day even the cryptic message of his father had been thrown into the background by these new and more disturbing events.

"Gentlemen," the chairman explained. "Certain things have happened which are of vital interest to this company. You all know about the pictures which have been appearing in Central Park. Whatever their nature, which we are not interested in, their effect has been marked not only on our enterprises but also on the general public.

"We control, through our stock ownership of various companies throughout the world, over twenty billion dollars worth of property, and whatever affects the business of the world affects us and our investments.

"You all know of the *Pride of California.* That ship was the finest of the fleet of one of our companies. So impressed was the steamship company with the threat of danger shown in the pictures that an order was sent to have the ship return to Japan, which it had left for San Francisco.

"The order was obeyed, but five hundred miles from the coast the boilers exploded and the ship went down with a loss of half

its passengers. You know the effect of this on our stock.

"You know of the showing of the death of Walter Billings, one of our most capable officers. Gentlemen, we are confronted by a serious situation caused by this unknown force. I believe that a vast organization of radical agitators are deliberately causing these tragedies in the hope of undermining our whole social order. I have called this meeting to find ways and means of combatting them."

A very old and bewhiskered gentleman arose.

"Gentlemen," he said. "Our chairman is right. I want to go on record as proposing a thing that we have discussed before, namely that our international lobby have bills introduced into the various national congresses making radical agitation that aims at the destruction of lives and property a capital offense!"

There were confused murmurs about the table. "Oh that's going too far!" said one.

But others vigorously applauded the old man, who sat down.

Carol glanced at Blake who was gazing questioningly at his fellow directors.

The chairman rapped for order. "Gentlemen, a motion to that effect will be entertained by the chair, it being understood," he added significantly, "that no mention is to be made of this in the minutes."

When the motion had been made, Carol leaned toward Blake. "Is this why I am here?"

Blake gripped his arm. "Wait!" he whispered.

Then he rose.

"Gentlemen," he said slowly. "You are making a great mistake, and because you refuse to recognize what is before your eyes. I can't believe that any man of intelligence and honesty of mind can affirm that radical agitation is behind these cloud pictures."

A current of protest swept about the table. But Blake put up his hand.

"I haven't finished," he stated evenly. "This board is doing what is done all too often. You find yourselves helpless and impotent against a new and terrible force, and you are seeking for something to vent your fury against. I have studied these cloud pictures," he said soberly, "and I have been deeply impressed by them.

"I agree that they constitute a menace, and I can state from opinions I have obtained from the most eminent scientists of the day whom I have consulted, that the mere showing of the pictures aside from the prophecies, if prophecies they be, is the sign of a scienitfic power unknown to the race."

THERE were exclamations of surprise.

"Yes, gentlemen," Blake went on suavely. "While you have fumed and sought an expression for your rage, I have investigated. Think, men, think! If radical agitators possessed such power, as you attribute to them, need they stoop to such petty guerrilla warfare to gain their ends. Don't you see that by the very scientific ability that they possess, they could openly challenge our whole order if they wished. Does the immensity of this thing strike you as being the revenge of a group of murderous socialists or communists?"

The bewhiskered gentleman rose angrily.

"Mr. Blake, we are getting nowhere. You haven't proved that radicals are not back of this, the radicals who have been trying desperately for the past five years to destroy our order."

His words were greeted by applause and shouts . . . . "The question . . . . the question . . . ."

Blake raised his hands helplessly. "I see you are determined to ruin yourselves. I ask you not to do this thing. I agree with you that these pictures are a danger to not only us but our whole civilization, but I ask you to approach it intelligently. I ask you to appropriate one million dollars to a fund to discover who and what is behind these pictures . . . ."

The vote that followed was overwhelming for the original motion. Carol had voted with Blake out of loyalty to Joan. He remained through the rest of the business which included a vote for a statement of confidence to be issued by the company, and the pledging of funds to support the company's stocks in Wall Street.

Carol and Blake walked through the streets after the meeting had adjourned.

"I'm sorry for all this, Carol," Blake said. "I'm afraid these old fossils are determined to ruin us all."

"You're sure," Carol said, "that you believe the pictures to be true prophecies."

Blake nodded, and his face tightened. "I can discover no other explanation. Carol, our civilization is going to face a crisis because of them."

Carol looked at Blake questioningly.

"Social disintegration if they continue," Blake affirmed. "My boy," he added, "I believe that our civilization despite its evils is headed in the right direction, and if given time everything will work out. But this force wants to cripple and destroy it." He raised his voice so that passersby looked at him closely. "I believe in our world, Carol, and I don't want to see it destroyed. I have a mission now, to find the source of this power and to smash it. I believe it can be found because it is a natural power."

They came to the street where they were to part. "Why don't you join me in this?" Blake said as they clasped hands.

Carol shook his head. "It's not in my line, Mr. Blake. And, besides, perhaps I can't appreciate the danger."

Blake smiled. "Well, never mind. But come to see us soon."

With that Blake walked hastily away.

CHAPTER IV.

To Meet Booth

A GREAT distaste for the city had filled Carol, and a longing to get away from it. Returning home, he gave orders to Pimpkins to pack his bag for a month's cruise on his yacht. Pimpkins' face was asmile as he nodded to these orders.

"I'm glad, sir," he said simply.

When he was gone, Carol leaned back in his chair. Suddenly he remembered his father's note. Was he to neglect this urgent request? Perhaps after all, he could regain his zest for things by going to see Booth and at the same time erasing the mystery that surrounded the man.

He reached for the telephone and was soon speaking to Green.

"I will leave tomorrow afternoon," Carol said briefly.

"O. K.," was the laconic answer.

Recalling Pimpkins, Carol notified him of his intention not to take the yachting voyage. Instead, he ordered his flying togs laid out for the afternoon and an airplane placed in readiness.

"Am I to go with you, sir?" asked the valet.

"You are not. I am going alone."

"Very good, sir."

So on the afternoon of the first day of June, 1950, Carol Dunfrey left New York City in his Duplier plane. Two thousand feet in the air he entered the New York-Washington air-lane and setting his course indicator for Washington he relaxed back into the pilot's seat.

Far beneath him the Jersey fields slipped by and in a short time he could see winding toward him, miles on his right, the glistening ribbon of the Delaware River. Though keenly alive usually to the beauties of nature Carol today saw only houses and fields and water. The beauty was gone.

Stretching out toward the southern horizon was an unbroken line of planes, on the New York-Washington course. Above him on the higher speed levels there would come a sudden ear-splitting hum rising to a higher pitch and then receding as a plane shot by at eight miles a minute. Below were the free lanes of slower speed where local planes could do as their pilots desired.

He was decidedly depressed this morning. He had thought that he know what depression was when both of his parents had left him so suddenly. It was true that he was alone except for Joan, and though he was sure she could be depended upon, still his uneasiness of soul was too great for love-making. Rising above the horizon of his mental confusion there confronted him the mystery of Henry Booth.

He felt instinctively that when he met this man of mystery he would have to make a decision of vital importance in his life. There was something that he could not und-

erstand but at the end of the trip he would know.

What help was it that Booth wanted? Was it wealth? Was it power? He would refuse him if he called on the Dunfrey fortune to create more wealth. There was too great a centralization of wealth as it was. And still more he resented the wealth being used as a means to gain greater power. Power was also too highly centralized. He thought of the millions of workers, the city hordes of men and women, hurried, restless, driven, aimless and unhappy.

He had thought once of giving most of his fortune away, retaining only enough to keep him in comfort the rest of his life. But what good would it do? The people who needed the money most would spend it foolishly, giving way to repressed cravings and the next day would be back at work or in the bread line. They could not be helped by mere gifts of money.

And they could not use power. That is not wisely. He thought of the French Revolution and what happened when the peasants took Russia away from the aristocrats. He thought of the riots in London when the Labor Party and the Liberals had been deadlocked over the nationalization of coal mines bill for two weeks. He thought of what New York would be like if the workers realized their power too suddenly.

No! Emphatically no! He did not know what kind of help Henry Booth wanted but he would not help him place either power or wealth in the hands of the ignorant, the avaricious or the ambitious.

YET he felt that he ought to trust to the good judgment of his parents. His father had practically commanded him to help the man; and his mother, in one of her most precious moments of confidence had also asked him to do what he could. Would they have taken this position if the man were worthless or not to be trusted, if his plans were impractical and visionary? Absolutely no. And that was the other way of looking at it.

It was barely an hour after he had begun his journey when he saw the wheel-like outlines of Washington before him. Now, to follow instructions he changed over to the Washington-St. Louis route to go exactly two hundred and ten miles. This course was new to him and while the mechanical pilot could be trusted to keep the course once it was set, he felt that it would be worth while to do more of observation and less day dreaming and worrying. No use worrying about imaginary things! It might be something real that he would have to worry about soon.

He opened the window a little to let the cool air flow into the cabin like water from a rapidly flowing mountain stream. The lowlands were sweeping behind him, and far ahead he could perceive the foothills of the Blue Ridge, gently rolling back to the horizon. Little streams crisscrossed the meadowland below him and here and there after a patch of wood he would come upon a crystal lake amid green meadows.

The foothills of West Virginia swept beneath him as he at last turned south upon the last lap of his mysterious journey. Twenty miles passed, then fifty, and Carol was atremble from a new unknown excitement.

When the indicator registered precisely seventy-three miles, Carol switched on the televisor. He saw beneath him stretching out for miles, only the bare rugged hills of the Blue Ridge. Hardly a green thing, not a sign of habitation anywhere.

Suddenly he heard a buzzing in his radio. He switched it on. There came a low voice.

"You will see just ahead of you a bald mountain top . . . . do you see it?"

"Yes . . . ." Carol stammered, into the speaker.

"Circle over it and be prepared to land."

"On it?" Carol asked.

"No, you will see a landing field."

"Very well," Carol switched off the radio and circled what appeared to be a gently rounded hill of bare rock, set into a ravine of jagged and precipitous cliffs.

A sudden fear swept over him. The country looked forbidding. He might land here but could he ever get away? Still it had to be done. Exactly over the rock he stopped his propeller and started his helicopters. The plane dropped gently with beautiful ac-

curacy directly toward the rock. Then to Carol's surprise, the rock seemed to open, as though the top had been stripped away and he found himself dropping into a vast cave, down to a sandy floor amid a group of flat white houses.

"Simply one more mystery," was Carol's last thought as the plane touched the ground. He waited a moment to recover from his excitement and then opened the plane's door. As though waiting for him as he left the plane, he met two men. One man was old. He walked with a limp, and a livid scar disfigured his face from right eye to throat. The other was barely more than a boy, a slender, tanned youth who stood in the background.

Carol knew without asking that the older of the two was Booth. But the man did not wait for him to speak. With a smile he said,

"I suppose you are Carol Dunfrey?"

"I am. And I suppose you are Henry Booth."

"Yes. I have been awaiting your visit with the keenest interest. You must be tired, so suppose you rest a while. George, take Mr. Dunfrey to Number Two."

The Cavern

IT was with justifiable curiosity that Carol looked about him as he followed the young man. The cave was a long cylindrical shaped cup which seemed to be hollowed out of the bare rock, the sides rising smoothly on every side. He estimated that the cavern was about seven hundred yards long by three hundred yards wide. About half the space was filled with about a dozen one-story buildings all monotonous in their whiteness. Everything was white and the entire absence of color, especially green, gave the entire place a strange austere beauty that at the same time was desolating in its lifelessness.

Looking upward he saw that the roof was composed of steel which no doubt had been so cunningly painted that it resembled rock. There was a movable door and through that door he had gained entrance. Even as he looked, this door slowly rolled shut and the blue sky and sunlight was shut out.

Light came from somewhere, diffused evenly about the cavern. There was a chill in the air and Carol felt intolerably lonely.

"This might be the land of the dead," he thought. "And perhaps it is part of the plan to keep me here. Still this boy called George seems to be very much alive and even happy.

"Are you happy, George?" he asked.

The boy looked at him laughingly as he replied,

"Certainly I am. Why not? This is my home and I have everything I want."

"But have you ever been to New York?"

"Why should I want to go to New York?"

"I do not know, George, but I do know that many people are never happy till they go to New York and when they get there they are not happy either. Do you like Mr. Booth?"

"I think that he is just about the nicest man I ever knew. At times when I think of him and God I feel that God must look like Mr. Booth."

"Even with that scar?"

"Certainly. That just makes him all the nicer."

But if the outside of the camp repelled Carol, the interior did not. He followed George into a room that was not only comfortable but tastefully furnished. There were pictures, copies of the old masters, a radio, a baby grand piano and just rows and rows of books. Across the hall there was a hint of a most comfortable bed room. A wide window opened from the living room to a balcony which gave view of the whole camp.

George put down the overnight bag.

"We have dinner at seven," he said, "but if you want me before just press that button. Mr. Booth said I was to do all I could to make you comfortable during your stay here."

George left the room, turning at the doorway to give Carol a shy glance of admiration.

Sinking into a chair Carol closed his eyes and tried to think. The mystery associated with the name of Booth had not been dispelled by meeting the man. Rather the mystery was deepened, not only by the ac-

tual appearance of the man himself but also from this place—so strange, so aloof from the world that was just beyond the walls of rock. There rose, in Carol's mind, a flood of new questions which demanded answers.

From the first moment he had seen Booth, Carol had been impressed by the aura of isolation that surrounded him. He seemed to stand apart from everything around him in an attitude of absolute self-dependence.

Now that he was actually here, and had really met Booth, the whole adventure seemed more and more unreal. So much had happened in the last few days that it appeared to be gradually assuming the dimensions and similitudes of a dream. Carol wondered when he would awake. Perhaps in a few minutes he would wake and find it all a dream and he was back in his own house. And was it true? Yes! It was a dream. For there in the doorway stood Peter, good old solid Peter, rather white-looking but at the same time very fleshlike.

"Is that you, Peter?" Carol asked in a low voice.

"Yes sir," came a voice real and distinct.

CAROL stood up, stretched, walked over to the window and looked out at the other buildings, then he turned suddenly.

"What in the devil are you doing here?"

"I came with you in the plane, sir. You see I promised your mother that I would take care of you and I had an idea that it might be dangerous, this trip, so I came along."

"You should have stayed at home."

"But I promised your mother, sir."

"That is different. If you promised her, you had to come. Now that you are here, you might as well unpack my bag and get ready to shave me."

"What suit will you wear, sir?"

"I have only the one I am wearing."

"No, sir. I brought six suits along with me. I was sure you would want to dress for dinner."

"Good Peter, and now suppose we go across into the bedroom."

The bedroom was furnished in green. Tapestry on the wall, a deep rug on the floor, coverlet on the bed, all in green. But it was not the peaceful color scheme that brought Carol up with a start.

"Look at that, Peter. Do you see what I see?"

"I do, sir. It is a bed with a curious carving on the posts. See the pretty little girls trying to escape from the goat men. That, Mr. Carol, is either the bed your father once bought or it is the exact duplicate."

"The bed my father had was marked. I went loose with a penknife one day and carved my initials on one side of the tail board."

"There are the initials," said Peter, as he lifted up the bed spread. "Your father must have sent it here."

"Well, I guess father knew what he was doing, and he must have thought a great deal of that man. Do you know the history of that bed, Peter?"

"I ought to, sir. That was the bed you were born in."

"You are right. Now I am going to sleep in that bed again and I think I will have a new birth, Peter."

"Just what do you mean, sir?"

"I don't know. Probably just a silly idea that came to me suddenly."

"May I advise an aspirin tablet and a few moments of relaxation, sir."

George returned once to inform Carol that Booth begged to be excused from meeting Carol at dinner. He would, however, see him in the morning. Carol's dinner would be brought here.

Carol nodded. He needed time to readjust himself to this strange place.

As he sat smoking after dinner, Carol tried ineffectually to compose a letter to Joan. But the realization that he must remain silent about these new experiences, made his words empty. He tore up note after note and at last dropped wearily into bed.

CHAPTER V.

God or Devil

IT would be too much to say that Carol slept well that night. But at least he slept. Dreams tormented this sleep, however, and filled him with vague forebodings when he finally awoke and remembered them.

"This seems to be the same old fight," he mused to himself. "The hand of some Italian, now long dust, carved his idea of life on these bed posts. It is the conflict between two antagonistic forces in the world, the struggle between light and darkness, good and bad, the left side and the right, the sky and the mud; and God and the Devil.

"Here are pretty little girls who were just tending to their own affairs and happily singing on the green grass. And along comes a spider and sits down beside her and frightens Miss Muffet away. No! That is not mythology. The right way is to see those goat men, half men and half animal, slowly creeping through the grass and suddenly pouncing on the little dears, giving them the fright of their lives.

"Peter. I was looking at those carved men and women on the bed. Ever examine them closely, Peter? You notice the women are running away from the men. What would happen if the men ever caught them? That is what I want to know."

"I believe the women would like it, sir."

"But they are running."

"Women always run, sir. I feel that it is a part of their nature. But they do not intend to run all the time. They realize that it is predestined for man to catch them, sir. That is what the housekeeper said to me, 'How can I escape from you when you are so bold and when it is predestined'."

"God or the Devil?" thought Carol, as he dressed. "Which is this man Henry Booth? How perfectly silly for me to ask a question like that when I know nothing about him. His face is perfectly horrible but his eyes are kindly and once I thought that he was able to smile. Yet it seems to me that if his motives were innocent there would be no need of all this secretive conduct, and this hidden cave. Yet he may be working on some secret which he wishes to hide till its perfection.

"And then there is my mother. I think she must have been one of the best women in the world. If Joan develops into a woman like her I will be happy. Mother would not have asked me to help Booth if his ideas were in the least wrong. But perhaps she did not know? But father must have known."

An hour later George appeared, to lead them to another building in which there was a large room set for a meal. There were seats for about fifty around a long table. Booth was waiting near the door. His greeting was friendly.

"I hope that you slept well, my dear sir. In new surroundings a man is sometimes restless. I arranged satisfactory quarters for your man. I was not expecting him, but you were not either and George tells me he is much attached to you and therefore discreet. Come with me and let me introduce you to my staff. We are very democratic here.

"Gentlemen, I want you to meet Mr. Carol Dunfrey and his friend, Mr. Peter Pimpkins.

"Suppose we all begin breakfast. Our community is small and therefore we are all hard workers. George, you help entertain. Peter. I am sure he will like your line of chatter."

Carol began to eat but found time to glance around the table at the men Booth had introduced. Though he could not define it, he found something about them that unmistakably set them apart from the rest of the world. Perhaps it was his vision of them living here together shut away from the world outside and its turmoils. Perhaps they had grown alike from association and similarity of work and habits.

Then he noticed their faces were all tanned, to such a smooth brown that a marked similarity was noticeable. The tan had an artificial look, caused, Carol realized, by administering of ultra-violet rays. If these men were shut away from the sunlight con-

tinually, some substitute for the sun would be necessary.

They ate slowly, as though time had no value to them, they ate carefully as though they had cultivated the habit of weighing every action, they ate quietly like gentlemen. But there was little conversation and no laughter.

BOOTH semed akin to these men, though with him there was a greater air of mystery and detachment. Carol found that beyond the usual polite questions and answers nothing could be hoped for in the way of information at that meal.

Booth was certainly disfigured. The livid scar covering a third of the face gave a horrible twist to his mouth whenever he talked. Carol thought of the "Laughing Man" so well described by Hugo. But in this case there was no laughter, rather a deep, pathetic look which seemed to denote pity. But for whom?

It was the man's eyes, however, that were his greatest assets. Deep, fathomless black eyes that seemed to fascinate without meaning too, attract without effort, govern unconsciously all they gazed on. They told of the man's power.

One by one the men left the table. George took Peter with him. At last only Carol and Booth were left.

"There are a lot of things I want to say to you, my dear boy," began the man of mystery, "but first I want to tell you how sorry I was to hear of the death of your parents. Your father and mother meant everything to me. They were my dearest and closest friends. Circumstances made it unwise to see you up to this time, but it has been my daily hope that it will be possible for us to become as close friends as your father and I were.

"No doubt you are quite puzzled at this retreat of mine, and your presence here. But I will explain everything.

"I am engaged in a project on which I solicit your help. Fortunately, I have already many loyal followers, the men you have seen here. But we need more. Your father for many years supplied me with financial aid. We were just about ready to gather in the twisted strands of our work and complete it when he died.

"I cannot do more than ask you to begin where he left off. Your father was insistent that you be left a free agent, but he felt that when you knew the facts you would be more than willing to become my partner."

Carol looked the man squarely in the eye. He was surprised that he even tried to. But he knew that there was something to be said and no matter how disagreeable, he was going to say it.

"I am only a young man," he said, and there was a quiver in his voice which he could not conceal. "Only a young man and yet there are certain hard fundamentals in my life. One is honesty and the other is openness of purpose. When I think a thing I say it. Surrounding you is an air of mystery. All you touch seems to be filled with that same secret atmosphere. I know nothing about you, that is, hardly anything. I am going to be perfectly honest with you and tell you that you cannot have a cent of the Dunfrey millions till you lay your cards on the table and convince me that your project is clean and your programme an honorable one."

Booth smiled. He answered Carol quietly and there was no quiver to his voice.

"I would hardly expect the son of my friend to say anything else. Your statement is appreciated and I might say rather expected. I want you to go into this with your eyes open, and with a full appreciation of all the facts. Suppose you come with me to my workshop. There we can talk freely."

They left the building and entered the one next to it. A passage way led into another building and at last they were in a large square room that resembled a library rather than a work shop. There were maps and charts on the tables and on the walls. There were hundreds of books on shelves that lined two walls.

Here in this room, Carol felt again an aura of power, that seemed to seep from the walls and frighten him. Booth motioned Carol to a chair which faced a large inclined panel, about three feet from the

floor holding a large number of dials. It resembled some great complex radio. In the middle of the panel was a square occupied by the end of what looked like a gigantic bifocal eyepiece of a microscope. The chair Carol occupied and another beside it gave comfortable access to the eye pieces of this apparatus.

Booth Speaks

"SIT down in one of these chairs, Carol. You do not object to my being informal enough to call you by your first name? Your father and I used to call you Carol and naturally it is hard for me to think of you or call you by any other name. You sit in one chair and I will sit in another. You want openness and I will give it to you frankly.

"I ought to say a few words," he continued, stroking his scar with one hand. "I first thought that it would be best to have you stay here a few days and become acquainted with us before I revealed my secret, but I can sense your uneasiness and inner turmoil and that you are eager to get away.

"So I decided to talk to you this morning about some of our plans and I can best start the talk in this room. Perhaps you wonder why your father asked you to come here and see me before you made any plans for your life work." For a few minutes Booth was silent, looking almost moodily at the pipe in his clenched fist. Then he went on.

"Your father was my best friend. It was his own idea that, if he should die suddenly, I should have you visit me and explain to you our work. You were to have an invitation to participate. We were sure that if you did not approve of it you would at least keep our secret."

"I want to be sure of my father's position," said Carol doggedly.

"It was simply this. For years I have planned a work and your father has financed it. There are not many in our organization but he and I were the leaders."

"He must have approved of it."

"Naturally. It was his life's ambition to live and see it end in success. Only his untimely death prevented this.

"You are rather young to bear the responsibility of so great a secret, and yet you must have your father's blood in you, and I am satisfied from what I know about you personally that you are going to be a true son of a great man."

"You say you know a great deal about me personally?"

"Yes."

"I despise this constant reference to the use of a spy system. If I thought that one of my servants—"

"Now don't allow yourself to think ill of them, Carol. I'll explain everything in good time."

"But I cannot wait!"

"That is because you are young. Youth is always impetuous. Now before I go on I want to ask you one question. If you were given an opportunity to share in a work which has for the only object the promotion of the happiness of the human race—would you join? Would you join no matter what the cost was; even the subservience of everything else to that purpose?"

"You use the word happiness?"

"That and that alone."

"Not greater power or more wealth for the few?"

"Never. Happiness is my only aim."

Carol looked at the mysterious man closely. The hand opening and closing on the pipe was a strong hand. The eyes were strong. The whole man gave the impression of immense reserves of power. The thought came to Carol for a second, only to be instantly dismissed, that he was talking to one who was insane, a dangerous monomaniac. Booth talked of happiness for the human race. How could that be accomplished by a handful of men shut up mysteriously in a cave in the Blue Ridge?

Yet he felt the impact of a powerful personality. Was the man trying to bring him under some kind of psychic control? Could he be trusted? Should he go with him or should he refuse to come under his influence?

Booth sat motionless. Had his eyes been closed it would have seemed as though he

were asleep. While abroad, Carol had seen in a Berlin park the statue of an ancient Germanic ruler—a man with thin, intense features who sat high and aloof, yet with burning eye seemed to dominate the people of the city. Carol remembered that the women used to cross themselves as they passed through that square. The little children would run to escape his shadow. The rich young man suddenly saw that resemblance of Booth to this old Teuton king.

He knew that he had to give an answer. But it had to be an honest one.

"I cannot tell you what my reply will be, Mr. Booth. I cannot tell you because I have not the necessary facts on which to base an opinion. You speak in generalities. So far I have not learned a single fact."

"You are the true son of your father."

"No doubt. But I am of the opinion that he never went into anything blindfolded."

An Amazing Sight

BOOTH leaned back in his chair. "Very well. You shall see. I suppose it unnecessary to ask that you will never betray what you see and learn here." Carol nodded. "Then look into that eyepiece. It is not necessary but it will help if you try to imagine that your entire body is being sent through that opaque lense. Now pardon me a minute."

Booth rose to consult a voluminous book. Then he walked over to what appeared to be an automatically recording typewriter. Carol looked on quietly.

"Now I want you to imagine you are at a coal mine in Cornwall. Now keep remembering it is the mouth of the shaft in Cornwall and you are there. Keep looking at that glass."

Booth turned a large dial. From somewhere, it seemed from under the floor Carol's chair was resting on, there came a slow ponderous grinding as though some metal god of the underworld was being aroused from an age long rest. Gradually the sound changed to a thick muffled groan of increasing vibratory rate. During this period it seemed to Carol that he was being lifted from his seat, and carried through the ground glass eyepiece into unfathomable space. He developed a slight nausea with a sense of lateral vertigo, a sense of being tossed into space like a fragment of cosmic dust. He held on to the handles of the chair, pressed his body against the back but still the feeling remained.

Looking sidewise he saw Booth turning one dial after another, touching the rubber knobs with those strong fingers and yet with a delicacy of contact that seemed almost feminine in its lightness. Then to Carol's overwrought nerves came a queer thrill, as though a strong current was sweeping him, not only through space but also through time.

At last Booth pressed a button, his last movement. Everything in the room seemed to become quiet. A hush of lifeless death fell on the room and a blur appeared on the eyepiece Carol was looking through. The blurred picture gradually cleared and then sharply outlined, distinctly focussed, unspeakably clear, came a picture.

It was a strange village. There was a large opening in the ground surrounded by buildings. Piles of coal showed the nature of the mine. A machine was hauling something out of the pit, something at the end of a long rope. Excited groups of men gathered around, and with them were weeping women and little children playing, unable to realize what was happening.

Soon the end of the rope came into view hauling up from the hole a rough cable car. On it were four men and they carried a rough stretcher. A little man, his head was crushed and bloody, lay on the stretcher. There was no doubt that he was dead. A woman carrying a baby rushed up, threw off those who sought to hold her back with kindly arms, and threw herself on the body of the dead man.

Henry Booth pressed another button. The scene faded. Carol rubbed his eyes and looked at the man seated in the chair a few feet away from him. Booth started to explain.

"You have just seen a picture of the death of John Haynes, a coal miner in Cornwall. He said goodbye to his wife, went to work

and was brought up dead. Of course it has not happened yet."

"Not happened yet?"

"No. It will not happen till tomorrow. When we receive the report of the accident we will check that with our own chart and see if there is any variation. We constantly do this to determine any flaws in our machinery."

Carol sat with his head in his hands. Was he awake or dreaming—dreaming of thousands of people in the darkness of Central Park looking upward with strained eager faces at a puff of cloud. He jumped from the chair. "What have you shown me?" he cried huskily.

Booth rose and placed a gentle hand on Carol's shoulder. "Just a projection of the future, Carol—"

Great turmoil surged through Carol. He felt unable to speak—"You—you—" he managed to blurt. Suddenly he became cool.

"Then you are the man who has been showing the cloud pictures in Central Park?"

Booth nodded.

Carol gazed unbelieving at him. It seemed incredible that he was finally face to face with the man who was responsible for those pictures.

Carol felt that the man simply could not do what he claimed. There had been some hypnotic power. Perhaps there was such a thing as mass, group hypnotism. The actual ability to see what was taking place in the future was a prerogative of Divinity. The whole thing was impossible, unreal, absurd. He was dreaming and would soon awake. It was all false, untrue, a phantasy. All of it, the man, the silent camp, the exhibitions and the odd machine that was given the credit for causing them,—all a lie, the work of a degenerate, psychotic man drunk with power and anxious to ruin the whole world. Happiness? Bah!

But he had to see it through. If it were a dream he would awaken. If a reality what a chance was his to save the world. But once again he heard his mother's voice asking him to help Henry Booth.

Booth was talking.

"What do you think of it, Carol? Have I shown you what I can do? Simply this. I am able to look into the future and see the destiny of man. I can see the future of humanity and make that future known to man; and perhaps when he sees the pitfalls in his destiny he will take steps to prevent it. Will you join me in this work?"

"All my life," Carol said, "I have heard the doctrine of predestination preached from the pulpit. I heard it so often that in time I came to believe in it. The idea was that the life of each man was predestined and that in no way could he change it by so much as a millionth of an inch or the split second. I never felt easy over the idea but it explained some things and the fact that it was God who arranged the Programme made matters a little easier to accept.

"But no one could change the Programme of the individual man once God had ordained it. It seemed that even God, once he had written the page of a man's life could not alter it. Now your statement is in variance in two ways that will take a lot of explanation. You replace my God with your machine and at the same time say that if man is warned, the danger can be averted. Explain that and tell me of this peril to the human race and I may go with you. I may—and *I may not.*"

CHAPTER VI.

A Threat and a Prophecy

"SUPPOSE we go to my library," Booth said. They walked out of the laboratory into the street and along the center of the cave. Now and then they met one of the workers who stopped to ask for advice or instruction. To all Booth listened respectfully and gave unhurried and complete answers. At last they entered a house detached from the others.

"This is my home," announced Booth, simply, "and this is my library. I do not know what the word home means to you but it means much to me. This is the only home I have ever had. I have slept in a barrel, washed dishes in a filthy restau-

rant. I have even slept in a chair with my head on a rope for fifty cents a night. I spent long months in the trenches in 1918 and long years in a cheap, college boarding house. Now I am living in luxury, thanks to your father. All the great things I have in my life I owe to him. All the comfort and hope and inspiration I received from him. Sit down."

"You have their pictures, my parents?"

"Certainly. Why not? They were my best friends. Are you ready for a lecture?"

"I hope so. I am trying to be impartial, to retain my poise, but it is only fair to say that it is hard for me to do so."

"I cannot blame you. Here is a little science. Einstein showed us that everything is simply the manifestation of the same force, energy. Time, space, movement, gravitation, electricity, life,—all simply various ways of looking at the same force.

"Space you are familiar with. Movement you can understand. My hand is on the arm of this chair and now I move it and it is five minutes of eleven. I raise my hand and unsupported it falls, and that is gravitation. Now I raise my hand. I say that I have raised it and that is an event of the past. I say that I will raise it three seconds in the future and that is a prophecy. I count one—two—three—and up goes my hand and the prophecy is fulfilled. That is simple, is it not?

"Now at this precise moment we stand in the middle of a flood or tidal wave of time. There is time back of us and time in front of us and we are moving on that wave. The bootblack on the street, the courtesan in her gilded cage and you and I in this room are on the crest of that time wave.

"Suppose that yesterday, all day you had been followed by a man with a moving picture camera. Every moment of every second would be recorded. Then you would have those pictures thrown on a screen and you would look at them and say that they were true and lifelike and actually represented what happened. That is clear so far.

"Now tomorrow you are going to do certain things at certain seconds of the day, determined by the forces that are already at work in you. Suppose we take a picture of your conduct tomorrow and show you those pictures today. You should, if you were honest, say that they were just as truthful as the pictures taken of you yesterday. That is what we have learned to do. We lay no claims to the influencing of human conduct, we simply state that we are able to predict and visually show pictures of future happenings. I can tell you just what you will be doing at this time three hundred days from today. At least I can show you a picture of yourself at that time."

"Reading a newspaper?"

"Yes."

"Then you can tell who the next President of the United States will be?"

"Certainly."

"Then why have the election?"

"Because only I know the secret!"

"I see the point. Now how will this knowledge of the future make the human being happier?"

"It will show him the truth and the truth will set him free from the chains of ignorance, greed and a slavery to intolerance and falsehood."

"But perhaps he does not want to be set free."

"He must want to or else humanity will be destroyed."

"You said that before."

"I will say it again. The Time Projector will for the first time show mankind the consequences of his acts in time for him to avoid those acts and their consequences. Once he adjusts himself to the eternal, everlasting, unchangeable laws of truth . . . ."

"Wait a minute. You talk of science as though it were God!"

"Perhaps the words are synonomous. Let me ask you a question. You were too young to remember the last war, but perhaps you have read about it, seen moving pictures of it. Let me tell you this. The pictures told the truth but only part of the truth. I lived through most of that war. I have limped ever since. Millions of the soldiers

came out alive but mentally and physically bankrupt . . . .

"WE know now that war was the direct result of the selfish thought and action of less than a hundred men. Suppose the common people had known before the war just what would happen all through it. What if the mother had seen her mutilated son, the father his blinded boy. Suppose the German school boy had seen the trenches and his knife in the body of another schoolboy who had committed no crime greater than being born a Frenchman? Suppose the conduct, the thoughts of those hundred politicians had become the property of the common people? I tell you that they would have taken those politicians and sequestered them for life. They would have stoned them to death, they would have done anything to prevent fourteen million of our best boys tearing each other to death or mutilations worse than death. Am I right?"

"I think so. I heard father talk about it. He went through part of it."

"His body was not hurt. Mine was. But my soul was hurt worse. I made up my mind that there should never be another war, not if I could help it. But let me tell you something, Carol. Forces are dangerously at work right now. The seed is being sown which will ripen into another war twenty years from now. It will be a war that will kill a fifth of the world's population and the remainder will die of disease and famine." He was silent for a moment immersed in thought. Carol felt stupefied—unable to move or think. He could only listen.

"I am sure that man does not consciously direct or determine his future. The world is too large, there are too many confused, battling forces for any man or any group of men to control. The leaders take advantage of their position and ride on the crest of the wave to worship or detestation. They take advantage of the tides of life battling ceaselessly against the shores of eternity. But if mankind could tell what the future holds he could control that future, change it.

"Let me give you a concrete example. I see that a man will tomorrow fall under a locomotive and be instantly killed. I do not want this man to be killed, so I warn him. As a result of this warning he remains at home and is saved."

"Then you can still save the life of that coal miner in Cornwall?"

"Yes, I could."

"Why not do it?"

"What would be the use. He would think that it was some kind of a trick and would refuse to take advice. Am I right?"

Carol nodded. "But," he said. "If you can change the future, then it is not really the predestined future that you see."

"You are right," said Booth. "What I see is the future as it is being arranged by all the forces in existence. If I interfere with that future—warn the coal miner for example—I must again look into my machine to see what the new future will be—not only for the coal miner but for everything else in the world that the coal miner's life affects. If he is saved, he may become Prime Minister of Great Britain and so affect the course of world history.

"Our great mission," continued Booth, "is to educate the masses so they know that there exists the power to see the future. They must be taught at first through fear. Stop thinking that we arrange disasters. We have nothing to do with that. We simply see what is going to occur at a certain time in a certain place. Once the world understands this, its fear will change to trust, faith in whatever warnings we give. Human conduct will no longer be governed by temporary greeds, passions and lusts but by a deep sense of truth and the fitness of things. Would you like to see some pictures of that future war?"

"No. At least not today. I am shaky enough as it is."

"Very well, Carol. We will postpone it, but listen to a little more of the lecture."

Carol felt calmer. He had not given his decision but at least he knew the mystery. The worst of it was over and he was still sane. He had not even become hysterical. There was entering him, like a warm, stimulating liquid, the influence of Booth's per-

sonality. He felt it flow through him, and as it swept along it removed fear. Was he beginning to have faith in the man, Henry Booth?

"Man has paid dearly in the past for his follies," said Booth. "But they never wrecked humanity entirely because man lacked the ability to do himself enough damage. But he has never been in the same dangerous state of unstable, unbalanced equilibrium that he is at present. In times past he was closer to the elements necessary for the continuance of life, the production of food, shelter and clothing. His ability to destroy depended on his ability to come into personal contact with his enemy. The result of the interaction of confused forces battling for control in life was never powerful enough for any to gain enduring supremacy. Napoleon, for all his genius, had to continually reconquer Europe, for it was physically impossible in his day to keep an entire continent under the iron heel of one man. But today the iron heel is replaced by a scientific HELL, and the old confusion of aims that used to animate nations becomes of greater and more vital importance.

Carol Decides

"THE world, by the interaction of thousands of forces, is being driven toward a final conflict in which science will destroy not men, or armies, but nations and at last all humanity. The airplane can spread poisons that will destroy all life, animal and vegetable and turn a state like Pennsylvania into a charnel house over night.

"Cities like New York and London can be shattered in a few hours by a bombardment controlled by wireless. Panic will follow attack and death, and starvation—hopeless endings to all that is worthwhile—will take their place as destroyers of the race of mankind. Those who live will have such shattered nervous systems that they will crawl into caves and pray to the Gods they know to crush them so they will not have to bear the endless suspense of the days, the hopeless terrors of the night.

"There is a little nation, a very small, tiny people. One of their number works day after day in a little laboratory. All alone he will discover a new and deadly germ, the paranium bacillus. He will be driven to scatter this new germ through the countries that are filled with hatred for his beloved land. When that germ starts to work, the Black Plague will be a game for children in comparison. It will leap across from one house to the next and from one country to another. It will cross the ocean on the wind and the deserts in the carpet used by the Arab, who will die as he prays to his True God. The gangster will die in the jail, the minister in his pulpit, the little baby at her mother's breast. There will be no more war because Universal Death will serve as the great Pacifist.

"I felt that something like this would happen. As the years have rolled by I was sure that there would be another one but I *could not prove it.* Now, thanks to my Time Projector I am able to. I can not only tell that that devastation is coming but I can give all the details. And this war will be the price that man pays for his folly unless he is able to escape. I want to warn him. *But he has to believe in me!*"

"And you really think that you can establish that belief?"

"I must. It can only be by continuing as I have begun. I mean to show man his future. By a thousand proofs, by ten thousand actual examples I am going to show him that the future is known. Then, when he realizes my power to see it he will be willing to listen, and when he does he can be saved, and the world, free from fear, will become a happy place to live in."

"But unless you interfere by a warning the action goes through as shown in the picture?"

"Absolutely."

"And it cannot be avoided?"

"Only if I give a warning—such as that to the coal miner."

"But there would have been no way of saving him without telling him?"

"Unfortunately no. There is one part of the invention that I have not told you of. We have what might be called a prognosticating time and space board. The time

board is divided into split seconds. It work in harmony with an indicator on a world map. As the time indicator moves on in split seconds the indicator moves. Suddenly a signal flashes red. The automatic recorder makes a record of the time and the corresponding place. A number of my men every day take those danger time-place warnings and by the Time Projector find out just what the event is. I do not know how it works. It is just something that happened to come to our attention and we used it."

"Looks to me like an intelligence worthy of divinity."

"I suppose so. To me it looks just like one more scientific truth which so far we are unable to explain. But here is the way we can use it. Suppose that we see that a great man is to be assassinated at a certain place at a certain time. We can warn him and his life can be saved."

"And if enough people believe the warnings?"

"Then nations can be saved as well as individuals and we can influence the entire race of mankind."

"I think I understand it now. Just what is my part in all this?"

"You are to take the place of your father. He was a powerful influence in the world. He believed in me and was willing to work with me toward saving humanity. It is sad but the world must be first frightened and only then will it accept the truth of my teaching. You must be the leader, the one who will teach the race."

"And you?"

"Where I have always been, my dear boy, and that is in the background. I have never cared for power and I have no use for wealth. I was really in earnest, Carol when I said that I was anxious to make the world a happier one."

There was a long pause. Finally Carol spoke.

"I am going to go through it with you. I think that it will be worth while."

"Then you really believe in me?"

"Yes, I think so, but I guess the real motive back of my decision is a boundless faith in my mother.

The Time Projector

"NOW may I ask you to show me the Time Projector?" Carol asked.

"Certainly, but suppose we wait until after lunch. Now I must ask you to excuse me. I must go on my tour of inspection of the camp. It gives me my chance to meet my workers and to clear up doubtful things for them."

"They are all fond of you, it seems," said Carol as they rose.

"I don't know," said Booth wistfully. "They were all workers with me years ago. I got to know them all so well that I knew before I asked them that they would come here with me. George was the son of one of my men, who was killed years ago. He commended George to my care."

"Do they know your secret?" Carol asked.

"No. At least no one knows all of it. Each man, even my chief engineer, knows only a part of it. They are all loyal but not curious. Now I must go. We will meet again after lunch."

They walked into the street, Carol returning slowly to his own quarters. The impact of Booth's revelations, like a sudden wound, had at first stunned him, killing all sensation. Now confused thoughts were returning.

He smiled as he thought of his fellow directors, feverishly ferreting out half-starved agitators, while here in this hidden retreat, a calm little man . . . . .

Then came the thought of Joan, and her awe of the exhibitions; and Blake's impassioned words. . . . "I have only one mission . . . . to find and crush this thing."

Reaching his room Carol sank into a chair. Had he really enlisted himself in this gigantic plan of Booth's and alienated himself from the world that he knew? Carol tried to shake off his forebodings, and to free himself from Booth's spell. But they clung through the rest of the morning and through the luncheon sitting next to Booth.

When the meal was over Booth asked Carol to come with him. They went through a narrow corridor, down steps carved in the solid rock and finally emerged

upon a balcony. It ran along the side of the wall of a vast vault as large as the upper cave. From the balcony ran bridges across the room.

The machine lay in the immense cave beneath them, quiet, motionless, potential in its strength, a sleeping leviathan. Carol caught only a confused glimpse of acres of metal, a monstrous metal bulk below them. Its size dizzied him. It seemed endless in its extent. Carol wondered if it was alive? The few men who stood around it watching the dials looked like insects beside it.

Booth pointed downward to a place where a great panel had been moved back from the top as thought to expose the heart of the giant. The interior was filled with countless thousands of pieces of a brownish substance resembling, at the distance, great sponges. They seemed to slowly vibrate, expanding and contracting . . . . like thousands of beating hearts . . . .

"That is the receiving time photograde," explained Booth. "There the impressions, the units, the elements of time-space forces, that compose the events of the world are received. It is the mouth which catches food for the machine. A rather crude expression, but easy to understand."

They walked on; at another point a vast door in the machine's side was opened. Here the body of the monster was filled with an enormous number of pieces of delicate mechanism which interacting on each other made Carol think of the works of a fine gargantuan watch. Each little wheel, each delicate spring, moving ceaselessly threw back the light of the room from a million reflecting facets. This portion of the machine was as large as a city block though it composed only a fraction of the entire monster.

Booth explained it.

"That is the analysis chamber where the future time-place-person pictures are sorted and classified. There are other parts to the machine, but it would take days to even give you a faint idea of the entire machine."

Henry showed him these parts, the great chamber, bewildering in the complexity of its mechanism, where further analysis and classification of events went on, and their trends into the future were sorted. He pointed out the middle photograde where the trends of various forces were re-combined by superimposing them one on another, as film negatives may be combined to get a composite picture.

"And here," Henry said finally, "the projecting photograde leads into the room where we saw the projection of the future, and from there I broadcast the pictures that are received on the cloud.

"What I have in my machine is a vast chemical retort into which are poured all the forces operating in the world—in nature, and in the hearts and minds of men and nations, to produce what we call the future."

CHAPTER VII.

Violent Measures

AT Booth's insistence, Carol stayed on at the cave. Day after day passed and still he could not tear himself away from the home of the Time Projector and the influence of this strange man. Since he had told his servants that he would be gone but a day or two, there would probably be considerable uneasiness at the Dunfrey home, although the household was geared to run indefinitely without a master. But Joan would surely be exceedingly worried.

Carol asked tentatively if he could communicate with Joan, but Booth shook his head. "I wish I could see how. Be patient for a few days more, and then go back to the city." Carol agreed to this reluctantly.

The machine, with its awful power, now fascinated Carol. Day by day he remained with Booth for hours as the latter swung dial after dial, consulting his ponderous books of calculations and formulae so as to get the settings proper to catch the time and place of important events.

Now for the first time as Booth showed Carol pictures of events to occur one, five ten years hence, Carol saw clearly the terrible folly of man. As a flashing burst of inspiration, the pictures laid clear how man, and his nations and his officials and organizations planted each hour the seeds for future unhappiness.

He saw the blunderings of politicians that that led years later to financial and social catastrophes; he saw the suppression by imperialistic groups of backward peoples—to lead gradually to the revolt of the victims and the destruction of their masters. He saw the building of homes and cities, and bridges for profit, and the destruction of some of these edifices with the loss of thousands of lives. He saw unwise laws passed, unwise liberties and restrictions, crimes and punishments—the whole panorama of futile human struggling against its destiny swept like a divine vision before him.

But not all was tragic. There was comedy in some of the scenes—comedy bitter and hilarious. There were scenes of hope too—the effects of the activities of men and groups here and there, struggling with force and wisdom for enlightened living.

Day after day, the bond between the two men became stronger. Carol fell completely under Henry's spell and saw now how the man had been able to hold his workers in this isolated spot for so long, working on a project whose nature they did not know.

His own part in Henry's program became clearer as he saw the gradual unfolding of Henry's vast conception of a world's redemption. While Henry was to remain in the cave, projecting year after year the scenes of the future, that were to make men confess that the power of prognostication existed, Carol was to go out into the world and begin to convert men and nations to the course of conduct dictated by the machine.

"For," Henry said, one day, "we cannot rule men by fear alone. The machine cannot remain in existence perpetually to act as his conscience. It is, after all, only a test of whether man can improve quickly enough to save himself. I give man this chance now. I will show him the truth, and allow him to learn over the course of years what conduct will bring him happiness and what will bring him misfortune. When I die, I wish the machine to be destroyed; I will not trust it in another man's hands, for it can become too terrible a power if used selfishly.

"Your place, Carol," he continued, "is to act as the living voice of the machine. The wealth, power and prestige of your name should give you the right to speak to man in his own behalf.

"I will give you the wisdom of the machine, and you will in indirect ways convey that wisdom to the people. You will enter politics and by your wisdom you will rise rapidly until you become a great world force. People then will have the chance to follow the guidance of a man with unlimited vision. If they follow you, I hope that the catastrophe of 20 years hence will be averted. If not . . . . I can do no more."

If Carol had in him any further capacity for surprise, the vision of his own destiny presented by Booth, shook him to the depths. To become a world force . . . . for the betterment of man! Was he worthy? He put this question to Booth.

"You are, Carol," Booth said appreciatively. "You have great capacity for leadership and power. I will give you the instrument to make it effective."

Left alone with himself, Carol wondered. He returned again and again to the great vault that housed the machine to look upon its great bulk, feel the thrill of its power through him, in order to test its reality and the reality of his existence.

He even went down into the ground to the vast base on which the giant rested, and ran his hands over its endless smooth metal sides. Yes, it was all true . . . .

He tried to question, during the last days before he returned to the city, what the future of man, and the world's happiness meant to him. Previously, he had been unaware of it. Only the happiness of three persons had mattered; and two of them were now gone. Did he really care whether the world evolved to some glorious summit of achievement; or, contrarily, if a generation in the future, it was struck with an overwhelming disaster?

At the moment he could not think clearly on the question. The personality of Henry and the power of the machine loomed too

vast in his mind. He knew that he would do as Henry had planned.

Accordingly on the fifteenth of June, accompanied by Peter, he entered his plane and shaking hands with Henry, watched the vast roof of the cave move back on its rollers until the dazzling sunlight of a summer morning flooded in. Setting the helicopters for a vertical lift, Carol felt the machine rise swiftly and a thousand feet in the air turned it toward New York.

* * *

WHEN Carol had telephoned her of his intention to take an outing for a day or two, Joan felt miserably alone. Her father had suddenly gone away on a mysterious journey a day after Carol's departure, and with her two only intimates gone, she felt utterly deserted.

Each night however, she attended, alone, the showing of the cloud pictures. And now with growing apprehension, as the authenticity of the pictures sank deeply into people's minds, she saw the terrible uneasiness in their faces. It seemed as though the future, that thing which was tomorrow, had suddenly left its place of hiding and had jumped out upon them. The future, with its menace and uncertainty, lurked around the corner, the presence of death and disaster weighed heavily on everyone, each action, each day became fraught with terrible significance.

The crowds had become boisterous, rough, offensive. Small riots had occurred one night, the third day of Carol's disappearance—seemingly the outbreak of passions otherwise repressed, and the mood of the crowd was so menacing that Joan did not dare return.

She spent two miserable days, filling them with restless hours at the piano until she felt obliged to jump up and rush to the windows for air. Then she read the newspapers, hungrily scanning every inch of the accounts of the exhibitions, noting now the evasive comments of public officials and scientists who had been asked for explanations of the phenomena. One paper called loudly, editorially, for the closing of the Park temporarily, hoping thereby to end the exhibitions.

On the day of that editorial, Blake suddenly returned home, his face worn and tired with days of endless thought. He embraced Joan tenderly.

"Daddy, I'm so glad you're back. I'd have gone mad in a few more days."

Blake stroked her hair. "Hasn't Carol been consoling you?"

Joan began suddenly to sob. "Carol's been away for five days now and not a word from him. I'm afraid something's happened . . . ."

Blake laughed. "Nonsense, he can take care of himself. Have you called his house?"

Joan nodded, wiping her tears. "All they knew was that he had gone in his plane on the afternoon of the first. They haven't had a word."

Blake could not hide his concern, though he shrugged his shoulders.

"And now you deserted me," Joan said accusingly. "And you look all tired out."

"I am, girlie," Blake said sinking into a chair. "Tell me," he sat up suddenly. "What has happened with the cloud pictures in the last few days."

Joan showed him the papers and the editorial. Blake read it with growing anger. Finally he threw it away. "The fools," he growled, "the utter fools."

"Why, daddy!"

"Don't you see, Joan," he leaned toward her. "They hope to cure the disease by stifling it. People have become doped with the exhibitions. We cannot simply deprive them of them. I'm afraid of what will happen now . . . . "

Blake's prophecy turned out to be true. That night a cordon of police guarded all entrances to the Park, and when the tens of thousands who arrived found themselves blocked by the ring of bluecoats, riots took place at a dozen sections. The morning showed a toll of ten persons killed and over three hundred injured.

But it showed a more astounding fact. Reading the paper, Blake and Joan learned that as the crowds had fought bitterly with the police at the southern entrance to the

Park on Fifty-Seventh street, the cloud was seen suddenly floating south over the Park. Miraculously, it had halted above the Park Plaza, and after a few moments had come an exhibition of the prophetic pictures.

The people, no less than the police, were stunned. But the showing of the pictures, and acute realization of the power of the unknown exhibitor had set the crowds in a new frenzy of passion. When the police tried to drive them from the Plaza, further bloodshed had occurred. A riot call resulted in the spreading of tear gas among the crowds and their final dispersion.

"No one," concluded the article, "noticed in the excitement, the disappearance of the cloud!"

Blake and Joan were silent when they finished reading. Finally Blake muttered softly, with the utmost of his feeling, "The fools . . . . the fools . . . ."

"But what is to be done?" Joan asked finally.

"Find whoever is responsible for this," Blake said savagely. "And then crush him."

Joan shuddered. Somehow she felt apprehensive for Carol . . . . why, she could not tell. . . .

Blake told her no more. And during the days that passed, she again lost contact with her father . . . . while her apprehension for Carol grew. Ten days had passed and not a word. The Dunfrey butler had telephoned Joan, admitting at last that he was worried. He stated that he had consulted the Dunfrey personal attorney and a private search was being made to discover if Carol had not met with an accident. They admitted that this was unlikely for the accident rate in planes of Carol's type was extremely low, and Carol was an expert pilot.

To Joan, Blake seemed to have plunged into some new and absorbing activity. Men came almost every hour to the Blake home, grave official-looking men, men carrying brief cases, bulging with the suggestion of huge documents . . . . With them Blake was closeted by the hour . . . . to emerge with them discussing gravely, in low tones, mysterious plans.

Carol Returns

DURING the meals, Blake was silent and absorbed but he showed, by his manner, the effect of a terrific mental strain.

One day he brought Joan a newspaper clipping. Joan looking at his grim face read it . . . . read of the introduction of a bill in Congress to make a capital offense of radical activities designing the destruction of property or lives. The bill was skillfully disguised to make it appear that actual destruction of property or lives must be proved before a conviction, but as Blake explained later, in a bitter voice, the judgment of the motives of the suspect was really left to juries.

"Our officials are determined to drive us into a bloody revolution," he said.

"But isn't it always the way with people heated by passion?" Joan asked. She understood shrewdly the connection between the cloud pictures and the proposed bill. "Don't we always fight with our teeth when we are backed against a wall?"

"It's true," Blake grunted. "But we're playing into the hands of whoever is behind these exhibitions."

On the fifteenth of June, as Joan was prepared to begin of her own accord a search for Carol, she suddenly heard his voice over the telephone. He sounded eager, yet restrained.

"Where have you been?" she breathed. "Carol! We thought you were lost!"

"In hiding," he said evasively. "May I come up."

"Yes, immediately," and in fifteen minutes, Carol was embracing her.

Her attempts to draw from him his whereabouts failed, however. He admitted that he had wanted to get away from the city, and had taken Peter into the mountains.

"Please don't question me, Joan." He seemed aged in the fifteen days.

Joan rose helplessly. "I can't understand what's come over people," she exclaimed bitterly. "Father is engaged in some secret activity that he refuses to speak about and he walks about as though he were pursued by a ghost! Now you come to me as though you were carrying the weight of the

world upon you. And to read the newspapers one would think that the whole world had gone suddenly mad."

Carol managed to quiet her, by assuring her that he would remain in New York now for some time. They passed the late afternoon in a walk along the precipitous bluffs of the Hudson, forgetting, in the joy of being together, all worldly cares. They returned to Joan's home in time to greet Blake returning from the city.

Carol remained on for dinner, a silent, dreary meal, each of the three absorbed in his own thoughts, Joan watching the men surreptitiously. When dinner was over, Blake asked Joan to leave him alone with Carol. Joan hesitated as she saw a sudden flush come to Carol's face, but yielded, only after saying angrily, "I suppose the only thing for me now is to suddenly disappear and return bearing some great secret . . ."

The men sat opposite each other. Blake smoked silently for a moment.

"We were rather worried about you, my boy," he said finally. "Joan was quite distracted."

"I know," said Carol. "I couldn't communicate easily."

Blake smiled wearily. "I hadn't meant to speak of that, but to renew a request I made of you some time ago."

"You mean to help you hunt down the secret of the cloud pictures?" Carol asked breathlessly . . . .

Blake nodded. "It's more urgent now, Carol. It's damned imperative in fact. I suppose Joan has told you what's happened while you were away."

"Yes . . . ."

"You can see for yourself, what we're coming to, Carol," Blake said, leaning forward. . . . "I've been studying this thing every waking hour for the past weeks. I've called into consultation every man of science who could possibly help me. I've become convinced, Carol," he said decisively, "that some gigantic brain is behind it all . . . . perhaps a perverted brain, I don't know." He sank back helplessly into his chair for a moment, as though he could not quite encompass the thought that he wanted to express.

"But whoever is doing this, knows precisely what he is about. He knows the effect that he wants to create upon people, and with fiendish cunning, he is going about it."

"What do you believe his purpose is?" Carol asked slowly, trying not to betray himself by his voice.

Blake looked out of the window beside them. "I don't know . . . . " he admitted. "That's the beastly part of it. I'll admit that with the power the creature possesses, he could have done more damage than he has. He has a sense of humor, at least, he has restraint . . . ."

"Possibly his intentions are good," Carol almost whispered . . . .

Blake looked at him sharply.

"What do you mean?"

Carol looked at his shoes. "Just a thought. I meant that it was possible that he had some good intentions . . . . a charitable aim that he was trying to accomplish."

Blake was thoughtful . . . . "Perhaps—to tell the truth it hadn't occurred to me. Seriously, it's hard to believe that a man could accomplish some charitable aim through such means . . . ."

Carol, afraid he had said too much already, remained silent.

"I've investigated this thing from every angle, Carol," Blake went on. "My theory has been that the man, and there must be one, or a number of men, can be found. The scientists I have called in, confirm the fact that the vast power contained in these exhibitions must be the product of some genius of science and as such he can be traced. I have been tracing therefore the activities of every notable man of science in the world. I intend to trace back for twenty years and to discover who had the genius necessary to create this thing. The man certainly must have left a trace somewhere. I have a corps of men trying to trace the source of the cloud pictures themselves, to discover how they are projected and from where. I intend to get to the bottom of this, if it takes me the rest of my life, and I want your help . . . . "

"Why don't you go to the government?" Carol asked evasively.

"No," Blake said. "Never! Allow them to blunder this thing as they have blundered every other? Allow politics and self-seeking to enter into it? I can only carry this thing out alone, and I intend to until I succeed."

Carol, looking at the man, believed him. He knew Blake to be possessed of a powerful penetrating intellect, and a sharpness of understanding that was the scourge of witnesses and opposing lawyers. For a moment Carol felt fearful, as though a great hand were about to crush down upon the lonely cave and the man known as Henry Booth.

"Frankly, Carol," Blake said. "For this private search, I need money. I am devoting my personal fortune to it, but I anticipate a need for a great deal more. You are the only man I feel inclined to call upon . . . ."

Carol sat still, unable to move. On the face of it, he could not refuse . . . . Blake of course knew that his fortune was great enough to permit the use of several millions without a thought . . . . yet could he agree? Could he aid this powerful and penetrating man to track down Booth? And after all there was a limit to the power of Booth to escape detection . . . .

"I don't know . . . . Mr. Blake . . . ." he said at last." Allow me to think it over."

Blake looked at him closely for a few minutes and then rose. "Very well, sir," he said coldly, and stepped aside. Carol walked to the door and after a quick goodbye to Joan left the house.

CHAPTER VIII.

A Second Letter

AGAIN Carol sat in the library of his home, seated as he had been three weeks ago with a letter from his father in his hands. In accordance with his father's request, he had obtained from Bowden, president of the Dunfrey National Bank, the sealed note that was to be read after he returned from a visit to Booth.

It seemed impossible to Carol, as he sat fingering the thick sheaf of papers, that so much could have happened to him in twenty-one days—that he had been lifted forcibly from his quiet student's life into the turmoil of the remaking of a world. From a prospect of a life of quiet study and devotion to the arts, he must face now a life of struggle against the confused forces of his world. In the world's happiness he must forget his own. Shaking off all morbid thoughts Carol turned to the letter in his father's handwriting:

"My dear Son:

"I am writing this long letter to you to tell you some of the details of my past life, which may be of assistance to you in your new task. I am going to leave the letter with Bowden. Your reading of it now signifies your willingness to carry on the work I started years ago.

"The last time Booth and I talked about you he asked me not to give you any information about our work till he had a chance to talk to you and personally make you a convert. But I told him that I was sure you would fall into line and gladly carry on the work I had begun. Yet at the same time I did as he desired and informed Bowden that this letter was to be destroyed if you did not call for it within six months.

"You know by this time the great need of your keeping Booth's work a secret. When the time comes he will be looked upon as the savior of humanity, but before that he might easily fall a victim to the passions of a frightened but ignorant world.

"You have often wondered just what my relations to Booth were and how our intimacy started. It is a long story but first I should say that *I believe in Henry Booth.* I know from what he has told me and shown me that no man could have a nobler and greater task. When I compare his disinterested passion for the world's betterment with the avaricious passion for wealth and power of the men and women who surround me, I become ashamed of my race and proud of Henry Booth.

"My first acquaintance with him came in college where we were classmates.

I made fair marks while he led our class year after year. I often saw him limping through the college halls, his eyes on the ground, his arms loaded with books with no time for anything but study. He had been seriously wounded in the World War, where he had won some fame and acquired a shattered body.

"His reputation came from his indefatigable energy and his amazing ability to assimilate and absorb every possible branch of science. One could not meet him, even in those student days, and not feel that he was different from the other students.

"He was so silent and solitary that not one of his class ever came to know him. Perhaps no one ever tried to know him; and not even the Professors were fond of him.

"My first actual contact with him came on a Saturday afternoon in spring during my last year at college. I had recently met your mother and was showing her through the college buildings.

"We passed into the Chemical Laboratory and stood watching a young man, the only one in the room, performing what seemed to be a delicate experiment. Though I knew Booth, I did not speak to him. I saw that he was interested in what he was doing and did not want to embarrass him for I had every reason to believe that he was woman shy. He was holding a Bunsen burner under a retort filled with a brown liquid, adjusting the flame and watching closely the timepiece in front of him.

"WE were behind him and suddenly I saw him stare into a mirror in front of him where he had caught a glimpse of us. But those few seconds of inattention to his work were fatal. There came a spurt of flame, the retort broke and the brown liquid was spattered over his face. He stumbled backwards blinded. I was helpless, but your mother remembering her chemistry, reached for a bottle of neutralizing reagent and started to wash the pitiful face, urging him in a low voice to keep quiet and let her help him.

"Her quick action undoubtedly saved his eyesight though it did not prevent his being badly burned. We helped him to his room, and I started at once to get a doctor for him. Curiously enough the whole thing happened without his seeing anything more of your mother than that glimpse in the mirror. Yet she was to play an important part in his life.

"Your mother felt strongly that in some way we were responsible for the accident and she suggested that I do what I could for Booth. Up to the time of our graduation I tried to cultivate him but my efforts were not successful. He merely tolerated me so I gave it up hopelessly.

"After my graduation I married your mother and for some time I lost sight of Booth. But your mother kept reminding me of him and insisted that I at least learn what he was doing.

"Eventually, I learned that after his graduation he had been given a fellowship and his remarkable discoveries in all branches of science had prolonged this aid.

"While he was doing good work for the school, he was also carrying on some private experiments of his own. In fact he had opened a small laboratory, and refused anyone admission to it. The school authorities felt that he was not treating them fairly and were extremely dissatisfied.

"For nearly five years he carried on his private work, hand to mouth and most of the time in debt, spending all his income on mysterious experiments. But if he learned anything he kept it to himself. He even refused to allow his name to be associated with the discoveries he made while working for the college. When I reported all this to your mother, she stated that she believed if he had a chance he could do great things. She wanted me to give him that chance.

"It was on her account that I made a visit to him and suggested that he broaden the scope of his research. I knew

nothing about his great aim in life at that time. I simply felt that he was thinking and working on something that was worth while. Your mother said at that time that her intuition told her that the man was engaged at some noble task.

"I found that the five years since graduation had simply served to ripen the man, to make him more confident of himself, of his ability to carry on his projects till success came. He seemed more than ever detached from the world, completely preoccupied with an all absorbing idea which was constantly growing more powerful. Although the scar across his face had healed, it remained a thing alive, as though the skin had been torn from him to reveal the glow of the inner man.

"I proposed that he come to New York and open a private laboratory there for research, offering to advance him his expenses against the income from any discoveries he might make. I told him he could thus be free from narrowing restrictions and envious companions. Imagine my surprise when he accepted my offer, as though he had expected it all along!

"It was only after working under the new conditions for one year that he trusted me enough to confide in me. Then for the first time I learned of his great aim in life, the total abolition of all war. Surely a stupendous programme. One man against the world!

"But gradually as I saw his scheme, I found myself fascinated by it. It was gigantic, yet reasonable if carried to a logical ending. Two things had to be considered. His ability to perfect the proposed machine and then that his ability to make the nations of the earth believe in him. I did not doubt that he could do both.

"His research had now reached the point where it was no longer possible for him to work in the confines of a great city; the risk of discovery was too great. So we located the West Virginia site and after some years of most difficult construction, made more difficult by our need of isolation and the few men we could depend upon to do the work, we arrived at a point where Booth could proceed to make the dream a reality.

"I was now in daily touch with him. We had our plans perfected and throughout the world a few trustworthy men who would do my bidding in carrying out our contacts with the world—such men as Green and Carr, whom you will undoubtedly meet.

"I was to be the leader, to take the place in the world made possible for me by the knowledge gained by the machine. This place will now fall upon you.

"I have seen the completed machine, Carol, and the sight of it is unforgettable. It is like a tremendous vision from a distant future age. With it, man has an opportunity for his betterment that may never come to him again. Place your faith in it, Carol! In a few weeks we are to start the exhibitions of pictures in New York.

"I am writing this letter to you because anything may happen. My heart is not in the best of condition and Booth has asked me to prepare for any eventualities. If you can feel it a duty, I want you to carry on in this work. I can say no more.

Your loving father,
Frank Dunfrey."

An Important Conference

CAROL replaced the letter in the envelope and slowly walked to his father's bedroom, carefully locking the door. In a clothes closet he opened up the secret panel holding the private radiovision set which Booth had told him about, to use for instantaneous communication between them. In a few minutes he was face to face with Booth. He could not keep his voice from quivering as he asked, "Mr. Booth, I have just read father's letter left for me. Did you know he was going to die?"

A shadow crossed Booth's face. "I did, but his death was unpreventable. There was nothing to do but to warn him."

"Then he knew too?"

"Yes," Booth answered, "for at least a month before he died."

"And he still carried on?" Carol asked.

Booth nodded, and Carol disconnected the set, and slowly folded back the panel to the closet. If his father had carried on, knowing death to be certain for him, his son could do no less.

The next day Carol went to Jersey City to see James Carr. Booth had said that he was one of the most important men in the organization, in charge of the supplies, and their transportation to the cave. Carol expected to find a business office but instead he found a book shop, and such a shop!

It was a second-hand store. Books and magazines and maps and pictures. But little system, no care but lots of dust. Carr was there, seated on a soap box. He was a little wrinkled man with a kindly but shrewd face.

"The motto of this shop is, 'Welcome and help yourself'," he said addressing Carol, "and if you find what you are looking for, you are a better man than I am, Gunga Din. My arrangement is simple. The printed books on the right side and the books with printing in them on the left side and other kinds of books where there are room.

"I started this shop over thirty years ago, being left some cash by a great-aunt. I had an idea that I wanted to own a shop to buy and sell books. You can see I have bought more than I sold. I had a system at first but they came in too fast for me so I just put my purchases down where ever I might be at the time I made the bargain and that is the best way.

"Suppose I bought Young's *Night Thoughts*, in 1925. I paid a dime for the book, while standing over by that door. I gave the man the money and laid the book down on the table. Twenty-five years after a man came in and asked for that very book. I recalled where I placed it. Of course by now it was rather well covered over but at last I dug it out and wiped the dust off. The man gives me a half dollar for it. You can figure out the profit."

"It is a fine business, Mr. Carr."

"The finest in the world, if you want to sell books. If you don't care for books it could be considered the poorest way ever for a real man to spend a life time."

Carol laughed as he commented on this last statement.

"If I said that you would become angry."

"Not at all. I am never angry. Want a book? I have not sold one for a week and I have a feeling that the time is ripe."

"I will buy a book. I have one but if I purchase another I will be able to better balance the library table. Will you advise one?"

"No. The chances are that you have not read one in a thousand of the books you see here. Shut your eyes and pick. Anyone will tell you something you do not know, and let me warn you. When a man comes in here dressed as you are I raise the price. I have charged as much as a dollar for a quarter book."

"Suppose I take this Hogarth. Send it to H. Booth," Carol said casually.

Carr smiled. "In this back room I keep my duplicates. Walk in. It is dusty but you will soon learn to like it."

He shut the communicating door, and led Carol into a real office, clean and immaculate as a new pin.

"You know me?" asked Carol.

"Of course," said Carr. "I worked with your father for twenty years. How is the master?" he asked. "Since the unfortunate death of your father I have been very uneasy. The bankers and politicians are very restless. I have an idea that they will move heaven and earth to stop the cloud pictures. You are replacing your father in our organization?"

"Not replacing him," replied Carol quietly, "but trying to do what I can to carry on the work. Booth asked me to see you and give you this list of his immediate needs. I will continue my father's part of the work and furnish you with funds. Need any now?"

"I have bills for twenty-five thousand."

"Cash or check?" Carol asked.

"No checks. Mr. Dunfrey always brought me the sum in thousand dollar bills. Could you do the same?"

"I can and will. Tomorrow at the latest. How do you operate, Mr. Carr?"

"I am president," Carr said, "of the Associated Purchasers, Inc. I buy whatever Booth wants and have it sent to the Associated Warehouse in Jersey City. One plane a day, piloted by my own son, carries to Booth whatever he needs. Simple?"

"Very," Carol smiled. He shook hands with Carr. "Please call on me for whatever you need. By the way, how shall I know if a man is in our organization?"

"Ask him if he knows where you can buy a copy of *The Happy Life.* He should tell you, 'At Carr's, north by west'. It may strike you as being mysterious but it's necessary to keep our organization secret for a time."

ONE hour later Carol was closeted with Gerald Bowden, president of the Dunfrey National Bank. Carol has been urged by his father, in a business memorandum left for him, to rely on the business judgment of Bowden. "He is as solid as the structure of the country," his father had written half-humorously. "As Bowden feels, so the country goes."

Carol was surprised to see a much worried banker. He enquired of the reason.

"It's these damnable cloud pictures, Mr. Dunfrey," Bowden explained. "They're slowly but surely pulling the country and the world into chaos. You don't realize how a thing of this kind can upset the delicate balance of our world.

"People don't seem to want to work any more, they have become unruly, lawless. Accidents everywhere are on the increase, rioting, radical activity is springing up everywhere. We've had a wave of strikes, a wave of lawlessness as in those days in the 1920s; foreign relations all over the world have never been in such a precarious state. It's enough to make one give up in despair."

"But how do you attribute it all to the cloud pictures?" Carol asked gently.

"It's beyond me," Bowden said, wiping his brow. "I want to pinch myself at times to see whether I'm dreaming or not. But I guess it's all true," he sighed. He sat upright as though he must get control over himself. "It's just this," the banker was himself again, "these cloud pictures, assuming that they really do show what is to happen, have convinced people that there is a power in the world bigger than any of of us mortals. Now these pictures have begun to show where the business and financial leaders have blundered; and people are blaming us for everything that happens."

"Well aren't they right?" Carol asked sweetly.

Bowden glared. "We're only human aren't we?" he snapped. "We don't claim to be infallible. But people seem to have no respect for authority any more, they go to these exhibitions as though they expected to see God there . . . " he seemed to absorb his own words . . . "yes God . . . Now people have no desire to do anything except quarrel with their neighbors, fight with their employers . . . steal, murder . . . "

"Well, what's to be done?" Carol asked quietly.

"Done?" Bowden looked at him questionably. "What can we do. This law to do away with our radicals should help. But those damned exhibitions must go too. Why they're uncanny, that cloud just seems to float about the city, as though it were a ghost."

Carol nodded. Booth had told him of his intentions to shift the position of the cloud each night, so that no overt acts might be taken against it.

"But things are bad, Mr. Dunfrey, the stock market is in the dumps and business was never worse. Luckily for us the bank is pretty solid, your father took care of that?"

"He did?" Carol asked surprised.

"Yes," Bowden looked at Carol with awe in his eyes. "It was almost as if your father expected all this confusion. So your interests are pretty safe."

Carol smiled. "Wise old dad," he thought. Then he decided to take a chance.

"Do you know, Mr. Bowden, where I could get a copy of *The Happy Life?*"

Bowden looked at Carol in surprise. "No, what is it?"

"Oh! just a book," Carol said indifferent-

ly. "But my real business. I want to buy a newspaper."

The surprise on Bowden's face deepened. "A newspaper?"

"Yes," Carol smiled. "I want to become a journalist. Can you suggest a good paper?"

Bowden pondered a moment. "It's rather a bad time to make an investment now, Mr. Dunfrey, but on second thought the purchase of a newspaper isn't an altogether a bad thought. I might suggest the *Daily Conservative*, yes that's it," he smiled slyly. "I suppose you want to take an aggressive hand in this confusion."

Carol nodded. "That's just it, an aggressive hand." He rose, "You will arrange it? Let me know the price."

Bowden shook his hand. "I'll do that. I think you can stir up the authorities to get rid of these vermin. The rest of the press is demoralized just now."

"Oh! but you mistake my motive, Mr. Bowden," Carol said innocently. "I don't intend to get rid of the vermin you mean. I want the cloud pictures to remain if they will help us to discover the sore spots in our social life. That will be my policy."

Carol walked to the door, and as he opened it, he looked back. Bowden was standing just where Carol had left him, a look of bewilderment on his round, dominating countenance.

* * * *

That evening as Pimpkins was laying out Carol's clothes, Carol suddenly walked into the room. He stood for a moment watching his valet.

"Peter," he said slowly. "I want to buy a copy of *The Happy Life*. Do you know where I can get one."

Peter grinned. "I was waiting for you to ask me that, sir. At Carr's, north by west. You see, sir, your father found that to keep me in his service in such a close—you might say—intimate position it was necessary to trust me."

"Then you knew about the cave?" Carol asked, his eyes twinkling.

"Yes, sir, but I had never seen it. Now I have seen it and I am content."

"Good, Peter," said Carol.

CHAPTER IX.

The Coming of Chaos

FOR the next two weeks Carol labored unceasingly at his desk in the publisher's office of the *Daily Conservative*. To the astonished and affrighted staff of this old and respected paper he delivered his statement of policy.

"We are to be the creators of a new world," he told them. "These cloud pictures are teaching us things. Our world is full of sore spots, full of inequalities, injustices, stupidities. We are going to clean them up. To those who want to work with me for a new order, I offer good jobs, to those who do not I offer my blessings. Do you want to stay or go?"

The answer was a cheer from his pressmen and reporters. The editors remained discreetly silent, but at the end of a week they were won over. They were tired, they said, of working on a ceaseless grind of profit-making—now they could work for the joy of it.

Carol had no illusions about the seriousness of his task. He saw everywhere about him the signs of a breakup in the morale of people. In clubs, restaurants, theatres, offices, there was an undeniable apprehension about people, a frightened look that turned occasionally to belligerence, as though they sought among those near them some one on which to vent their own feelings of futility.

The day after he had purchased the paper, Carol speaking to Booth over their private communication set asked if Booth would not cease the exhibitions for a few weeks. It would give people a breathing spell, perhaps a temporary feeling of escape from the deadly inexorableness of the exhibitions. But Booth shook his head, his face hardening.

"No, Carol, they must go on as usual. I cannot have the world feel that our enemies have conquered us."

"But it would be just for a few weeks," Carol protested. "Then you could begin again."

"No, trust me, Carol," Booth admonished.

Carol reluctantly agreed. But he did win from Booth the promise that the exhibitions for two weeks would show nothing alarming, they would be merely inconsequential happenings, a sign only that the power behind the exhibitions still existed.

Into the early hours of each morning, Carol labored at the organization of his newspaper, establishing firmly his knowledge of current affairs, writing editorials, interviewing prominent men to get their reactions not only on the exhibitions but on general matters—to feel the pulse of the world, as it were. There were problems to settle with Carr about the supplies for the cave, and with Green about the communications with the few men in foreign countries who were in sympathy with their cause.

Nightly too, Carol moved about the city watching the cloud pictures at the place Booth had appointed. By Booth's plans the cloud moved slowly over the tops of buildings so that the crowds could follow it until it settled somewhere about an open square where the pictures would be shown.

Though Booth had explained in simple terms the principles behind the cloud and its mysterious movements, Carol could never lose his feeling of the marvel of it all.

"What appears to be a cloud," Booth had said, "is a solidified foam of what I call Benzone. It is constructed so that the ridges in its surface have compensating effect and do not destroy the continuity of the image. The core of the cloud, upon which the cloud is formed is a magnetic torpedo, operated by Carr from the heights of the Hudson above Yonkers. When the exhibition is over the cloud rises high into the air, a black fluid is released from the torpedo which penetrating the cloud makes it practically invisible at night. Each evening Carr send it out and recalls it."

The people, Carol noticed, were surly, morose and inclined to be quarrelsome. In great masses they looked at the pictures in silence and often threw vile words against the night sky to indicate their defiance of the force behind the projections.

Springing up everywhere were street corner speakers who harangued crowds of unemployed, warning them of the heel of the ruling classes that would soon descend on them. Some of these self appointed prophets shouted that the exhibitions were the work of the "capitalists" who were trying to frighten the people into economic slavery. But the speakers themselves were plainly puzzled by their own words, they uttered phrases whose meanings they could not understand.

At one corner, Carol saw a lean wild-eyed man shouting hoarsely to a crowd that listened in stony silence. The man pointed to the cloud that was floating slowly down upon them. "Listen, you sinners," he screamed, "the day of judgment has come. On this white cloud is written your fate. Just as Sodom and Gomorrah . . . " but he got no further. There were hoarse shouts from the crowd, a surging forward, fists flew, screams came from the frightened man, as Carol saw him go down under blows from a dozen men. For a moment Carol stood there hypnotized. Then suddenly as a detachment of police charged down upon the crowd, it melted away. Upon the street, his head a bloody pulp, lay the prophet, his sightless opened eyes gazing upward to the sky from which the avenger was to come. Carol turned away sickened.

Though he telephoned Joan occasionally, and received cool answers from her, Carol could find no time to leave his burden of work to see her.

"Just a few days, more, Joan," he pleaded, "then I'll be free for you."

"Oh there's no hurry," she would say frigidly, and hang up the receiver.

Finally in desperation he telephoned her one day, and asked to see her at once. Deep in his subconscious was a need for a woman's love, and Joan was the only woman he knew who could fill that need. He must see her now, for his weeks of grace from Booth were up and he knew that in a few days Booth would again begin to project the inexorable fates of men. And with the present temper of people, Carol knew he must remain at all times in close touch with the world.

IT was restful to be with her that afternoon. In her spacious high ceilinged room he sat, a lonely young man, listening to her play Chopin, Grieg and Schumann, while through the French windows he could look down upon the velvet lawn and to the splash of the Hudson.

Joan was lovely, cool and restful. But today she was distant until finally she came over to him.

"Carol, what's come between us. What is this terrible thing in you that is estranging us?"

Carol smiled wearily. "I'm trying to reform the world, dear. Quite a task for a young man."

"It's not that, Carol," she shook her head. "There's something else burdened on you."

"It's nothing," he insisted, and as if to save him from further answer Blake entered the room. His manner, outwardly stiff, was underneath cordial to Carol.

"You're running a newspaper, I hear," he said, an attempt at friendliness.

"Trying to, Mr. Blake," Carol said offhandedly.

He looked at Blake sharply. The man seemed to have aged in weeks. His formerly plump face was thin and drawn, his hair had whitened perceptibly. His back stooped. He looked as though he were trying to avoid some horrible inescapable fate.

"Are you ill, sir?" he asked solicitously.

"Perhaps," Blake mumbled. He pointed to his brow. "But it's here." He sat down. "Carol, I want your help again. No, not what you mean . . . " he waved Carol back to his seat.

"Carol," he asked suddenly, "did you ever hear your father speak of a Henry Booth."

Carol clutched at his chair as though he were about to fall through a bottomless pit.

"Booth?" he asked confused. Could Blake have learned already? It seemed incredible.

"Why I don't think so?"

Blake shook his head. "I suppose not..." he turned to Joan. "Will you ask him to help us?"

Joan took Carol's hand. "Yes, Carol, try to think. Didn't your father ever speak of him?" she turned back to her father. "But daddy, this isn't fair, we must tell Carol what it's all about . . . "

"That's true," Blake nodded. "To tell the truth, Carol, I think I have found my man . . . the man of the cloud pictures . . . " Carol gazed at Blake stonily. He would not betray Booth though they tried to torture him. But now he must hide any sign of recognition of the name.

"In the course of my search," Blake went on, "I was determined to overlook no clue no matter how remote. I felt, as I told you before, that the man—and I am convinced now that this thing has one big brain behind it—must have left a trace of himself somewhere. My men searched the libraries, the laboratories, the patent offices, the scientific clubs, the universities all over the world. We looked into the records of hundreds of men, and followed thousands of blind clues. I have only one that shows any promise and curiously enough it lead to someone your father might have known."

Carol remained silent. He could not feign surprise, yet he must avoid any indication of suspicion to those searching black eyes that were watching him so intently.

"The only clue I found," Blake said, "was this book." He took a little volume from his pocket and handed it to Carol.

Carol read the title. "The Mathematics of Causation," by "Henry Booth". It was dated at Cambridge, Mass., 1925.

He handed it back to Blake.

"This book," Blake went on, "is an attempt to apply mathematics to the causation of events, the author taking the stand that one could chart mathematically the course of history or politics or economics, and project it into the future. It's a youthful volume, but it has a remarkable penetration into the subject."

Blake smiled, a wan smile. "It makes me almost believe in it."

"But you do, daddy," Joan interrupted. Carol looked from one to the other.

"Booth, I found," Blake went on, balancing the book in his hand, "graduated from Massachusetts Tech. in 1924 and from there his trail ceased until I found a pro-

fessor there who had been a student after Booth graduated. He said he remembered Booth as a silent secretive man who had made some rather remarkable discoveries in chemistry and physics, though they were not generally credited to him. But in 1928 Booth disappeared, and left no trace whatever and there the trail drops. I feel that Booth is my man."

He sat back silently as though to ponder his words.

Carol felt Joan's eyes on his. He looked at her soberly.

"Tell Carol, how this concerns him, daddy," Joan asked.

"It happens, Carol," Blake said, "that your father graduated from Massachusetts Tech in the same class as Booth . . . "

"And daddy thinks," Joan went on impulsively, "that if you can only remember just one little mention of him that it may be the clue to finding the man . . . Please think hard, Carol . . . "

"What is it, Joan?" Carol asked. "Do *you* want to see this man destroyed?"

Joan nodded emphatically. "Now I do, Carol. At first not, because I was overawed by the exhibitions, and I felt that perhaps if people could see the truth it might really make them free. But now when I see how miserable everyone is, how restless, how uneasy the whole world is with this strange force in it, I can't help but feel that it must go . . . the world was never meant to have it. Don't you feel that way?"

"I don't know, Joan," Carol said truthfully. Doubts were really assailing him.

"But about Booth," Blake persisted. "Can't you remember anything?"

"You see, father must have known him before I was born," Carol said defensively. He didn't care to lie to these friends. He didn't want to be forced to it.

"But wasn't there any mention of him whatever in your father's life?"

"There's none that I can say . . . " Carol answered.

"Then won't you help daddy to find this man, Carol?" Joan pleaded.

Carol rose. "I'm sorry, Joan, but there's really nothing that I can do."

The color left Joan's face. "Not for me?"

"I'm sorry."

Joan stiffened. "I believe we're detaining Mr. Dunfrey, daddy."

Carol nodded to both of them and walked from the room.

In the city he walked about more lonesome than ever. This meant now that he had alienated Joan forever, for he could never, at least not until it was too late, tell her his secret. She was definitely in the enemy's camp.

Must he bear this secret alone then? He looked into people's faces, to see the wonder and bewilderment there, and felt as though the desire to blurt out to them what he knew would become an irresistable urge. The desire to tell kept hammering, torturing at his brain, "Tell . . . tell . . . tell . . ."

CHAPTER X.

Carol Returns

WITH a lull in the force of the exhibitions over a period of several weeks, public attention became focussed on the bill before Congress to impose the capital penalty upon agitators aiming at the destruction of property and lives.

With powerful sentiment behind the bill, it seemed destined to pass, despite the mutterings from the liberal and radical press. But what shocked the country was to find one morning on the front page of the *Daily Conservative*, editor Carol Dunfrey, an editorial denouncing the proposed bill. "Are We Blind?" was the title in great black letters, and there followed in short bold sentences. "Are we blind to the forces that have created this bill? Are we blind to its purpose to stifle all free thought? Are we blind to the intention of one oligarchic group to hold the nation by the throat? Are we blind to the fact that it is the fear of the cloud pictures that is causing this cowardly reprisal against an unknown enemy? Are we blind to the fact that these pictures may help us out of the pits of our own follies?"

In some circles the editorial came as a

(*Continued on Page* 273)

The Planet of Despair

By R. F. Starzl

(Illustrated by Marchioni)

He heaved mightily and slowly, very slowly, the tremendous mass turned on its bearings.

The Planet of Despair

By the Author of
"The Terrors of Aryl"
"King of the Black Bowl"

HI BUCKRAM, corporal of the Interplanetary Flying Police, handed in his report gratefully, and after an interview with the station barber, turned toward Central City, in the heart of the ancient continent of America. It was only a hundred miles away, a matter of a few minutes in the bus plane.

The vehicle had only a few dozen passengers, I. F. P. men and like Hi, pleasure bent. But the young corporal looked forward with special eagerness to the skyline for a first glimpse of that glistening colorful wilderness of needle-like towers aspiring to the heavens. For Central City was the home of Cinda Mara. And Corporal Buckram, on that lonely six months patrol of the Mercurian orbit, had thought often and fondly of lovely Cinda. Heartened by his bright new chevrons and the increase in salary that went with them, he intended to speak definitely to her when she should recover from the glad surprise of his return.

The bus plunged dizzily from the rarefied upper reaches into the denser atmosphere below, its passengers holding on tightly to resist the rapid deceleration. It swept between tall pointed spires, settling at last on an absurdly small landing platform.

The pneumatic passenger tube station, where Hi proposed to take one of the swift little cars to the suburban Mara home, was still about a mile away, and Hi elected to walk, taking one of the higher promenades that crossed, like innumerable gossamer filaments, from tower to tower. He was conscious immediately of a pervading depression, a poorly concealed melancholy. Here and there were inconspicuous black streamers, the only sign of mourning allowed by law.

Hi remembered with a disagreeable shock that his pilgrimage of happiness was coinciding with a period of universal sorrow, the annual Days of Sacrifice, when the whole human race was bowed with grief and shame. It was the time of the final ceremonies when the victims, fifteen young men and fifteen girls, selected from the most perfect and the most beautiful on earth, were bid farewell with sorrowful pomp.

The crowds were drifting toward the Tower of Sacrifice, a jet-black, ugly conical structure that dwarfed the lofty, beautiful towers amid which it stood. Its top was swathed in a flimsy rag of cloud, as if even this lifeless symbol of Plutonian domination felt somehow the reproach of a still higher power. Out of that mountain-high top would presently trail the fiery wake of the Ship of Sacrifice, the black *Aegeida*, fraught with doom and despair. It would carry into the black frigidity of space the flower of humanity, to be delivered to an unknown fate on that dark, hateful planet appropriately known as Pluto, four billion miles from the sun. Then it would return, like

SCIENTISTS who examine the qualities of the human race, often tend to overlook the immense importance in our development of emotion. It is emotion—parental love—that causes individuals or races to store up wealth in various forms in excess of their needs for the use of their children. Upon this providing for the future, civilization is built.

Scientists often look down upon their fellowmen with scorn because they are so steeped in emotional responses. Yet if it were not for such things as jealousy, fear, love, pride and other emotions we might, as a race, have accomplished little with our intellects. And if a time comes, as our author has pictured, that we are faced with a mentally superior race, emotion may well serve us to win out against sheer intellect.

an evil omen, to await the next sacrifice.

The effect of this universal mourning on Hi was characteristic of him. Somehow he could not mold himself to the general acceptance of the inevitable. As with the majority of the I. F. P. men, the sight of the black tower filled him with bitter antagonism. His pugnacious though ordinarily pleasant face reddened, and his close-cropped, sandy hair under the small, close-fitting skullcap of the Service seemed to bristle. He went with the crowd, his narrowed blue eyes dangerous. The people made way for him, and so the soldierly figure in uniform, easily distinguishable in that sea of bright colors and flowing robes, soon reached the long ramps that led down to the half-mile circle at the base of the black tower. Several hundred yards away, under the frowning black stone, the sacrificial platform was filling. A city policeman hailed him:

"Just in, Hi?"

Hi recognized an acquaintance.

"Great time to come home, eh?" he grunted.

"Might as well come with me. I can get you through the lines."

R. F. STARZL

Somewhat reluctantly Hi went with him. A strong cordon of police surrounded the platform—a precaution against rescuing parties which were sometimes organized by the friends and families of the victims. They sat on the stone steps leading to the platform.

"Toughest assignment for a man on the city police to draw," Hi's friend stated. "People seem to think it's *our* fault, somehow. Look how they glare at us! They hate *us!*"

"Yeh," Hi agreed gloomily. "And yet," he added with vehemence, "if they left it to us we'd clean up that mess of devils or die trying!"

"I know that," the city policeman agreed readily. "You fellows did put up a beautiful scrap, and it was only because of orders from home that you quit before they'd reduced all your ships to nothing."

He was referring, of course, to that short, decisive battle which, more than fifty years ago, twenty-five years before Hi was born, had ended with the complete subjugation of the human race—until then the lawgivers and law enforcers of the solar system. The Terrestrials still policed the solar system, but only on sufferance of the Plutonians. And the far-flung orbit of Pluto itself was taboo to the ubiquitous patrols of the I. F. P.

A SIGH passed like a wave over the multitude, and an old man, clad in a robe of dead black with white border, stepped out of the tower on to the empty stage. On his head was an ugly, box-like cap of mourning. In his withered hand he carried a wand, or staff of purple transparent material. His white beard quivered in a slight breeze as he took his place before the amplifier microphones. He looked expectantly toward the seats intended for the sacrifices, who now filed out of the dark tower, dressed all in white. The girls, most of them, were led on the arms of Tower servants. The young men, walking alone, came with enforced calm.

It was a pitiable effort. Chalk-faced, the sacrifices had reached the stage of merciful numbness. They took their seats, fumblingly. Hi could not bear to look at them. Under his breath he cursed the age-old human fetish for making a show of everything. How much kinder to let them spend their last few hours on Earth alone!

"The Public Apologist—he's starting!"

In a quavering voice that sounded grotesque when powerfully amplified, the old

man began his discourse. Bowing low to the sacrifices he spoke:

"In the name of all humanity. . . ."

It was the traditional formula.

"In the name of all humanity, I beg of you forgiveness. That we may live you must go to your death. So it has been year after year for half a century. We pray that it may not be so forever.

"It is not want of courage on the part of humanity that sends you away. On even terms—on much less than even terms—would the Earthmen give battle to Pluto. But you all know how helpless we are! Is not that terrible year of 3,927 still fresh in the minds of people still living? The year when the Plutonians discovered their gravity distorting beam? The year that Earth left its orbit around the sun and flew off on a tangent? The year that we saw the sun dwindle and pale while the deathly frost drove us into the deepest mines, when even the winds died, and the air condensed like water on the surface of the Earth. . . ."

One of the girl sacrifices—a maid of eighteen, suddenly burst into a hysterical shriek. Two nurses carried her quickly into the tower.

"Oh we fought them!" continued the Apologist. "Our ships flew to Pluto as iron flies to a magnet. But as atomic cohesion is only another function of gravity, their distorting beam, sufficiently intensified, actually caused the atoms of which ships, men and weapons were composed, to disintegrate. Who can fight an enemy like that?

"So we were forced to this treaty—to sacrifice fifteen young men and fifteen girls every year—in order that all humanity might live. The Plutonians thereupon returned our planet to its orbit. Their emissaries are here. Are you ready?"

If the poor victims had been able to say anything their voices were drowned by the noise of the mob, confused shouts, shrieks, hysterical laughter. Someone started a patriotic song and it was instantly caught up, screamed in something of a frenzy by nearly half a million people.

Sickened, Hi turned to go, but a fresh outburst made him turn back. A Plutonian had come out of the tower, stooping to get his tremendous bulk through the door. His black, lack-lustre eyes viewed the public indifferently, puzzled perhaps, by that maelstrom of emotion that encompassed the entire range from bitter hate to adulation.

The Plutonian was Fernon, the scientist who was to officially accept the sacrifices. He was black with a hard, glossy blackness. Twelve feet tall, he stalked in like a conquering colossus. Only superficially did he resemble human form, for his powerful legs had webs, not feet. From his repulsive, wrinkled head sprouted two brilliant crimson knobs. The ears were small, close to the head and sharply pointed.

Fernon was entirely naked, draped only by the tattered and burned looking remains of what had been great, batlike wings in his youth, a thousand years ago. From a belt dangled an ordinary heat-ray weapon. From a ligament on one shoulder sprouted a young Plutonian, about six inches tall and fully formed, for the Plutonians have no sex, reproducing by fission, like the simple Earth cells. The young Plutonian was squalling and cursing in a tiny, mosquito-like voice, but Fernon paid him no attention whatever.

On Fernon's face, the most nearly human thing about him—was that same expression common to all Plutonians—an expression of neither good nor evil, showing no passion or emotion save that of vague curiosity. As he glanced at the teeming and hostile multitude, he seemed to be looking through them, eternally seeking for the answer to some cosmic riddle.

A Daring Exchange

FOLLOWING Fernon came the renegade technic, Bilks, one of the few humans in the service of the dark lords. Bilks was huge, for a human being, though dwarfed by his master. He was hairy, truculent, but now, as he darted furtive looks from side to side, he was sweating with nervousness. He had no physical violence to fear, but it was as if his brain could not withstand the silent storm of contemptuous hate that beat against him. Naro, Plutonian

master of the sacrifice ship, stooped to look out and nodded his head.

"Go in!" Fernon waved his hand, tersely careless.

Amid a deep silence the sacrifices started to file in. Hi Buckram watched them with deep pity. And a girl whom he had noticed before turned so that he saw her tear wet face. She saw him at the same time, shook her head with a pathetic smile.

"Cinda!"

Hi was clambering up the stone side of the platform. His friend of the City police pulled him back.

"Stop!" he muttered. "What's the use? I didn't know she was your girl."

"Let me go!" Hi panted. But several of the City guards seized him. A low growl welled up terrifyingly all around until it became a bestial roar, and the guards became the center of a battle royal. These riots were not uncommon, and as the City police battled for their lives Hi managed to escape. But against the press of the milling mob he was unable to win his way back to the platform before the door of the tower was closed. Hi looked at it for a long time, unmindful of the tumult, and when at last he went away it was with the air of a man who has determined to stake his life on a desperate venture, fully expecting to lose.

* * *

The Banquet of the Sacrifices was in progress. Night had turned the heavens black, spreading over a dream city. As far as the eye could see were exquisite pillars, towers, arches, bathed in milky light and flooded with rainbow colors. But the windowless Tower of Sacrifice was black and dark. Within it the choicest specimens of humanity sat at tables laden with selected viands that they could not eat, while a famous director was leading a symphony of colors and sound that went unheeded.

Servants came and went, wearing the special striped black and white sacrificial robes that were used for this purpose only. Guards scrutinized carefully the badges they wore, for it was a strictly enforced rule that whoever permitted a sacrifice to escape must himself be executed, or if physically perfect enough, to take the escaped sacrifice's place.

As one of these servants passed along the base of the tower in the shadow, a sturdy young man, wearing the conventional long loose robe, accosted him:

"Say fellow, how'd you like to make a tenner and have the rest of the evening off?"

"Can't do it, whoever you are. And besides, I don't handle nothing but fruit juices. Another guy has the sacrificial merclite."

"I'm not looking for merclite," explained the stranger. "I want to take the place of one of those fellows in there."

"I never heard of any exchanges this late," objected the servingman suspiciously. "Why don't you go see the conscripting judges?"

"I did, but they're afraid of the political effect. But—well, my girl is in there. You see? I'm Hi Buckram of the I. F. P. I can't let her go out there alone! Listen here, fool, d'ye know what that means?"

"It means the same to the rest of 'em," the man remarked unfeelingly, stooping to pick up his burden.

Hi knocked him out and dragged him into a niche in the wall, where he changed clothes with him. Then he boldly walked in, carrying a case of bottled goods with him. Fortunately he was met by an excited caterer, whose impatient admonitions to hurry amused the guards. Hi caught a glimpse of the banquet hall, with more than half the places around the great table empty. That meant that many of the sacrifices would be wandering around the tower.

He found his lucky man dispiritedly coming down the long spiral ramp which wound around the central space ship well of the black tower. Hastily explaining the situation, Hi effected another change of clothing, curtly stopped the boy's flood of incredulous thanksgiving. At any moment the call for the examinations might come, and if the full quota of the sacrifices failed to respond there would be an investigation. He reached the lower levels just in time.

FERNON was already at work. One at a time the sacrifices would be taken

before him, stark naked, and subjected to a searching physical examination. To the girls, most of them delicately reared, Fernon's impersonal examination was far less intolerable than the hungry officiousness of the renegade Bilks. Fernon saw this and sent Bilks out. But the Plutonian showed no great interest until he regarded Hi Buckram's muscular body.

"Are you the one they call Tycho Larus?" Fernon inquired rumblingly.

"I am," Hi replied without hesitation. Tycho Larus was the name of the youth with whom he had exchanged.

"They lied about your age, Tycho Larus?" Fernon remarked, making a perfunctory adjustment in a mass of strange instruments.

"It is perhaps your machine that lies," Hi rejoined evenly.

"You are actually twenty-four years old," Fernon pursued, "which is contrary to the covenant."

"All right," Hi exclaimed harshly. "Let me go then!"

"Oh, I don't know." Fernon thought for a moment. "It is perhaps because you Earthlings have kept too well to the covenant that we have failed in our quest." He squeezed Hi's arm in his ironhard grip until the soldier winced.

"Yes," he mused, "There is something about you which these others lacked. Are you happy?"

Hi looked at Fernon steadily, not speaking.

"Yes, I see," Fernon said after a moment. "You would be happy to fight me. Usually they are soft and whining and beg for mercy. But I never have found out what mercy is, except not to do the thing that you are going to do."

With a small pocket transparency ray Fernon carefully examined Hi's inner organs. "Good stomach," he mumbled, "good lungs, very good heart. Brain convolutions excellent. A firmness about you, Tycho Larus, that indicates you will be a good subject. By my knobs, but you are a stout one! You seem to feel no more fear than I. Here, how did you get that burn on your shoulder?"

"That? Oh that! Happened to stand back of a rocket plane when it started," Hi falsified.

"These Earthlings are in need of a lesson. The covenant stipulates that the sacrifices must be free from blemish. Still—I'll accept you. You may be more useful in our research than the others."

* * *

On board the *Aegeida* the sacrifices were well treated. The youths and the girls had separate quarters, comfortable, though they now had to do without servants. Bilks and Nara were the only crew, as the ship was a small one. Fernon appeared occasionally to check up the health of his charges but did not disturb them otherwise. Some of the victims were still sunk in dull apathy, while others, conscious that the end was near, sought the solace of love and companionship to help them forget.

Fernon continued to take unusual interest in Hi, known to him as Tycho. He did not fail to observe the attachment between him and the fair-haired girl who called herself Cinda Mara. One day he asked:

"Earthling, it strikes me that the ancient wisdom of our race is faulty. Although we are in every way superior to you, in your puny, shortlived bodies is something that we have not. Something finer. Something that we can no more imagine than you can imagine the color of ultra-violet which does not affect your eyes. What *is* happiness?"

"Seems to me I'm specially favored," Hi remarked warily. "What do you want to know about happiness?"

"What *is* it? Is it what you call emotion? You call them love, hate, happiness, sadness. What are they? For fifty years the great scientists of our race have tried to learn. Although we separated you in tiny bits we could not find out what made you as you are. But we know there is something. We have seen that to the Earth animals their trifling span of life is more than our great spans are to us. But why? To solve that riddle would be a great scientific accomplishment."

Hi looked into the gigantic black face that loomed above him. Fernon's disclosure reminded him sharply that to the Pluton-

ian he was no more than a mouse under the knife of a laboratory investigator. The dead black eyes seemed not even to be looking at him, but through him into the nebulosity of a cosmic secret.

"For fifty of your years, since the time of the Covenant, I have been bringing home the ship of sacrifice. Always they have been the same. The very young of your race, taken to a fate which they no doubt dislike, somehow seem to draw from some inner source strength—tell me—" and the Plutonian's gaze was all at once direct and penetrating—"tell me, is it their *souls?*"

HI BUCKRAM, former corporal of the I. F. P., alias Tycho Larus, laughed in Fernon's emotionless face. He slapped his thigh. He doubled up and shouted until the tears ran down his face, at the grisly absurdity of Fernon's casual disclosure. How interested they would be on Earth to learn what Fernon had just said, for the Plutonians had never deigned to explain the object of their research before, any more than the terrestrial scientists considers it necessary to explain to his guinea pigs why he is cutting them up.

"Listen!" He gasped when the paroxysm had passed. "Why, long ago—long before even you split from your parent—many generations of yours ago, your ancestors were looking for the very same thing. They came to the Earth. Somebody sold them on the idea that Earth people are different because they have souls. They spent a lot of time and did a lot of harm chasing around for souls. They certainly earned themselves a bad reputation, but they never found any souls."

"Tradition is that they did," Fernon insisted stubbornly, "but as the great work was about to be consolidated they met unexpected resistance. The Earthlings learned to fight. Earth was abandoned, and it was not until we invented the gravity distortion beam that we could renew our research."

"Well, of all the dumb—" Hi forgot his own position as he looked at Fernon with exasperated wonder. "Searching for souls—What were you going to do with them—eat 'em? How do you handle 'em?"

"Well," Fernon started to explain, "we go at it in various ways—" and with meticulous attention to technical detail Fernon explained the conflicting theories of various Plutonian schools of vivisection until Hi no longer saw any humor in the situation, but swayed, white-faced, thinking of Cinda.

* * *

Pluto was occulting more and more stars. The planet itself was dim, a vague, monstrous mass that seemed to hang menacingly a little above and to the right of the ship's bow. To the sacrifices it seemed to grow with ominous swiftness. Now it blotted out the entire heavens, and then the ship lurched as the bow rockets* were started, to decelerate.

A pilot ship of the Plutonian patrol fleet flashed by them, convoying them over hundreds of miles of icy, sterile terrain, until at last, directly below them, lay a yawning black pit, immeasurably deep. The ship dropped like a plummet, Nara, the master, anxiously watching the dull red glow that presently appeared below. Again came that swift deceleration, and the ship darted into a gigantic lateral tunnel, illuminated by a lurid, smoky light from a source somewhere in the depths, which Hi assumed to be of volcanic origin. Here, it was rumored, were the giant thermocouples from which the Plutonians drew incredible amounts of power.

A Bargain

THE rockets were now cut off and the ship was carried and drawn along by gigantic magnetic levitators attached to the ceiling of the great tunnel. There was artificial lighting from long, blood-red tubes. It seemed very insufficient to Hi's eyes, but he knew that the tubes no doubt emitted large quantities of infra-red light, by which the Plutonians see best.

*While the Plutonians used the gravity distorting beam in navigating some of their space ships, those touching the Earth were not so equipped, lest the terrestrials capture one and learn the secret of the beam.

So they came at last to a Plutonian city, a fantastic conglomeration of angular, misshapen buildings that looked like a wilderness of black basaltic rocks. The bloody red light seemed to lap them like waves of fire. It streamed in through the ports, painting the pale faces of the sacrifices.

The *Aegeida* touched the ground within high walls. Clean metal cages were carried out by a number of Plutonians, the sacrifices herded into them and locked up. Attendants carried the cages to a number of tables in a great pentangular room which was flooded with the throbbing red light, they saw to food and water, and then departed.

"So that's that!" Hi Buckram remarked. He had clung to Cinda Mara, and she was in the same cage with him. Hi's heartening presence had somehow raised her courage. He looked down at her now. She was sitting on the floor, looking at him with adoration, with confidence. Hi had told her that the I. F. P. had perfected a new weapon and would make a surprise attack to rescue them, adjuring her to keep that fact a secret. Of course she believed the blessed lie, for in times of extreme peril it is human to be optimistic.

As for himself, Hi was too hard-headed to indulge in such hopes. But he had promised himself that his own body and that of Cinda should be useless to the Plutonian investigators, in case a certain farfetched and doubtful plan of his should fail.

But first he would play that long chance. Fernon's casual disclosure of the Plutonian search for some kind of a usable soul-essense had somewhat reduced their mental stature in Hi's estimation. Perhaps they could be tricked. The trick might yield much. At the least it might yield a chance to reduce the population of the dismal planet somewhat.

They slept on little shelves around the sides of their cages. After some hours a Plutonian came, bringing food and water, but Fernon did not return until the equivalent of a day later, bringing with him a young assistant of three or four hundred years. They looked over their captives, discussing, in their guttural purring language, the work they intended to do. Hi Buckram had a smattering of that tongue, and mused that it was well the other captives did not.

"We will try this one first!" Fernon decided, opening the door of Hi's cage and reaching inside. The other captives ran, crouching into the farthest corner. But Hi went forward to meet the great black arm. He seized the wrist and vaulted into a sitting position in the crook of Fernon's arm.

"It won't be long before I see you, Cinda dear," he called cheerily. She did not see the fine dew of perspiration that covered his face, and was reassured.

Again Fernon paid him tribute.

"Look, Ushtur," he rumbled to his assistant, "how tractable it is. The others squeal and kick. A good subject. It is the one I told you about."

Hi squirmed about until he faced the huge scientist.

"Hey, I want to talk to you!"

Fernon let him stand on a work bench, so that Hi's eyes were on a level with the dead black questing ones.

"I have something of importance to tell you. Take me where we can be alone."

"To tell me of what?"

"Of what you want to know."

Fernon picked Hi up, strode into another wing of the great underground laboratory. This room seemed to be the one in which the actual work was done, for it was equipped with a wilderness of chemical and research apparatus, including huge tanks and test tubes as tall as a man, in which perhaps the Plutonians sought to isolate the elusive soul substance of humanity.

"Now, tell!"

"Fernon," Hi said with an air of extreme frankness, "I do not wish to die."

"Perhaps not," Fernon remarked indifferently.

"There is a girl in one of your cages whom I love. I wish to live, and with her."

"All our specimens wish to live." Fernon displayed slight impatience.

"My proposition is simply this. Set us free—let us live in your service—and I will show you how to extract the soul essence you are looking for."

FERNON did not hesitate to strike the bargain. The Plutonians had found other Earth renegades useful.

"You may try," he remarked. "If you fail you and your female can still serve as specimens."

"There are certain matters of equipment I will need," Hi stipulated.

"You shall have them."

"During one process of the reduction I shall need a tremendous amount of power."

"We have power enough."

"And the work must be performed somewhere where the cosmic rays from outside can reach us. They are essential. Without them the experiment must fail."

"We could lay power conduits to the surface, but that is five of your miles." Fernon was dubious.

Then Hi, with elaborate casualness, made the suggestion that was at the very core of his plans.

"In that pit, where you keep your gravity distorting beam—the big one I mean—you have both power leads and access to the outside. Also plenty of room.

But Fernon was cool toward the suggestion.

"We could use the pit we came in through, but not the pit of the beam," he objected. "We can not use that. It is the very heart of our defenses. Always under heavy guard. Only by special permission of the Prince could we use it, and I doubt that he would give it."

"You can ask him, can't you?" Hi argued. "Well, if you won't do it I won't work for you. Here!" He pulled open his robe, baring his chest. "Go ahead and carve me. See what you can find out!"

But Fernon did not attempt to wrest the secret from his breast with a scalpel. He locked Hi securely back in his cage and went to see the overlord of the planet. The other specimens crowded to Hi, and excited cries echoed from cage to cage. This tough and cocky young fellow had come back alive, as he had promised. He had vaguely promised something more. They dared to hope again.

Hi managed to shake the others off, drew Cinda to a corner and sat down with her.

"Things are looking up," he murmured. "I made a deal with him."

It was another twenty-four hours before Fernon returned, the victor of a battle in council, on his hand the ring with the august seal of the Prince, which made the wearer, for the time being, the equivalent of vice regent in so far as this applied to his own profession. His leathery old wings were even more tattered and useless than they had been before, but Fernon did not even bother to explain to Hi that his victory had included a duel to the death with Orfas, former custodian of the pit of the Beam. He merely told Hi that the required permission had been obtained.

The Pit was perhaps thirty miles from the hideous city where the prisoners were kept. It was a funnel like depression in the outer skin of Pluto, about a hundred yards in diameter at the bottom, with walls inclined at an angle of forty-five degrees. It had been formed quite simply after the Beam had been constructed in the underground cavern selected for it, by directing the Beam against the roof of the cavern. All the enormous mass of superincumbent rock, five miles thick, deprived of its gravity, was thrown out into space by centrifugal force.

In the center of the hundred-yard circle which Hi entered with his giant companion, was the Beam. Hi looked at it curiously. Although he was by no means a scientist, he had a smattering of such things that was as far advanced over our present scientific knowledge as a present-day radio amateur is advanced over a peasant of the Dark ages. Somehow Hi had expected to see a gigantic searchlight of some sort. Even the heat-ray weapons he was accustomed to were like that. But the Beam of gravity distortion seemed to emanate from a triangular arrangement of three polished metal bars several feet thick and about fifty feet long, joined at the corners by polished metal balls about six feet in diameter. The triangle was balanced horizontally on massive gimbals capable of swinging the Beam in any direction.

Hi had been toying with a vaguely defined plan to break through the guard, turn on the Beam, and direct it against the Plu-

tonians themselves, some time during the construction of his "soul-reduction machine." Now he saw that the movement of the triangle was limited by a massive quadrant that would not permit its being turned beyond the angle of the pit's walls. The Prince, with foresight, had seen to it that the weapon would be used against the outside world alone. Revolutionists would find little inducement here.

The Great Strategy

FERNON held up the Prince's ring, and the guards reluctantly raised their hands in salute and token of submission. There were about twenty of them around the Beam, as big as Fernon, but younger and stronger. Strong guards were at each of the numerous entrances of the pit, and walking guards, armed like the rest, with heavy maces and heat rays, paced their beats. The pulsating red light was over all, lapping at the rock walls, streaming out into space. On Earth, Hi knew, it was thought that this red light was the Beam itself.

"Begin!" Fernon commanded.

"Where are the main power leads?"

"You can connect up at one of those small red doors."

"Very well, but I will have to set up my apparatus near the center of the floor, to get the cosmic rays from all sides."

Fernon grumbled at that. "The guards complain about your getting so close to the Beam."

"Let 'em complain," Hi rejoined. "Show 'em the ring. This is important business."

Under Hi's direction Fernon and his assistants set up a nightmarish conglomeration of tubes, coils, polished bells, condensers. It must have puzzled the Plutonians, for it appeared to be nothing but a contraption for the dissipation of electrical energy, which, in fact, is all it was. But the end finally came, and Hi declared the formidable monstrosity complete.

"Now bring on your specimens, and don't forget your promise," Hi commanded. As Fernon turned to go he added:

"On second thought, better bring 'em in the *Aegeida*. That's more like home to 'em. It will quiet them, and make it easier to get the clear soul essence. The special solvent ray which I use at first will penetrate the metal of the hull easy enough. Later we will have to remove them for further treatment."

Fernon regarded Hi steadily. He mused.

"The further I go with this the more I am convinced that your mind is twisted somewhere. But if it is your intention to try and escape through the Pit with the ship you are warped worse than I realize. There will be a heavy guard. And if you fail to do what you have promised, you will be the first subject of a new line of research, which may be—very—painful!"

"Bring 'em in!" Hi repeated.

The *Aegeida* was brought. Through her ports, flushed pink by the throbbing lights, could be seen strained faces. Plutonians, negligently dangling their maces, rode astride the hull or walked along. Then, as the Plutonians and the renegade Bilks left the ship occupied only by the sacrifices, heavy heat weapons were trained on the hull. Should the hapless passengers attempt to move away under their own power they could be instantly reduced to cinders.

"The girl," Hi turned to Fernon. "Bring her out as you promised me."

"The female remains," Fernon replied without change of expression or intonation. "We have need of her soul substance now. But if you succeed you shall have your choice of all the females in the solar system."

Fernon's refusal, half expected, filled Hi with elation, for it simplified one phase of his plan considerably, but he was careful not to show it. Instead he affected resentment.

"All right!" he barked, "you go back on your agreement and I won't carry on with mine."

"The research I have in mind," Fernon rumbled, "is like this. We think that perhaps your soul substance is in the bones. We will therefore remove all the bones in your body, being careful not to let you die, and note the changes, if any. We will know then. . . ."

"All right! All right!" Hi shouted, and the sick look on his face was not acting. "Here goes!"

He pulled a lever, and the astonishing collection of electrical misfits he had constructed collapsed upon itself. The collapse had the appearance of haphazardness. But two massive bars of copper, connected to the five-inch cable that writhed over the floor like a monstrous serpent, fell straight toward the Beam. Two of the guards saw them toppling and dashed forward to seize them. They vanished in an arc of blinding light and searing heat. The bars continued their fall, carrying the arc with them. It enveloped the quadrant, and in a few seconds the metal began to drip on the floor.

Hi dashed through a pair of Plutonian legs, scratching his face on wiry hairs so that it bled. He was through the guard line, clambering through the understructure of the great weapon. A sentry saw him through a billowing cloud of red tinted smoke, but Hi dashed into a maze of rods and levers where the black giant could not reach him. Neither could the heat rays be directed into that delicately constructed heart of calamity.

The arc flared out. Someone had pulled the switch at the wall panel. The Plutonians as well as Hi were blinded, but as one of the former lurched against the delicately balanced triangle Hi realized that the quadrant had been burned off. He crawled to one of the sides, heaved mightily, and slowly, very slowly, the tremendous mass, weighing many tons, turned on its bearings.

A GUARD noticed it, leaped upon the rising side to bear it down. Another one also leaped. Immediately the triangle tipped the other way, gathering momentum. Before the bewildered guards could collect themselves the triangle had turned clear around, and the dangerous side of the bars was turned directly to the center of the planet. Someone attempted to start the controlling motor, but the connecting links were warped by the heat, and the only effect was to wedge the triangle in its dangerous position.

Hi burrowed deeper into the strange mechanism in the base of the great weapon. He took frightful chances, crawling through massive coils that might be charged with electricity, squeezing between the teeth of enormous cogs. The Plutonians were still probing for him from above when Hi crawled out below, almost under their feet, and very cautiously looked around.

He saw the *Aegeida*, still under vigilant guard, the strained faces of the sacrifices at the ports. And on the floor was the body of Fernon, his head split straight between the knobs by a mace. The young Plutonian had managed to break the ligament, however, and make his escape.

Hi had vainly been looking for a way to actuate the great beam, knowing that the distortion or reversal of Pluto's gravity would make the entire planet fly to pieces of its own centrifugal force. Now he noticed an inconspicuous kiosk about thirty feet away. The patent jealousy with which it was guarded by two of the Plutonians indicated its real importance, especially when the precarious position of the triangle was considered.

"Now all I have to do is get rid of those two fellows," Hi thought, grinning a little. His eyes narrowed speculatively, for he had noticed Fernon's ray weapon still hanging at his belt. In order to reach the body he had to cross a well lighted space. Once, he might make it, but back again—well—

But he did not have to make it back. One of the dead scientist's capes had flopped awkwardly over one side of the body. Under its sheltering obscurity Hi crawled, stifling his disgust as he felt the sticky, hot blood. He dragged Fernon's heat ray with him, found a rent in the leathery covering and looked out.

The Plutonians were still looking for him under the frame of the Beam. Perhaps they thought him mangled and dead beneath there. And the two guards still kept close watch over a wheel—it looked like an ancient water ship's wheel—in the kiosk.

Hi set the localizer on the ray, which would concentrate it in a narrow beam, sighted on the nearer of the two guards.

That one dropped silently, and the other died a second later. Like a flash Hi bounded across the floor. He had difficulty reaching the control wheel, but reach it he did, before any of the other Plutonians were aware of what had happened—spun the wheel frantically.

Immediately he was conscious of a feeling of weightlessness. Almost instantly came the pangs of suffocation, and the bite of cold. Hi realized that Pluto was indeed flying to pieces. By some chance, possibly because only the rock directly below them was in the path of the spreading Beam, the part of Pluto's crust that held the pit and adjacent territory, had broken away in one piece. Nevertheless, it did not have sufficient mass to hold an atmosphere, and their air was rushing out into space.

The crimson lights still pulsed with diabolical life, indicating that they were still connected with the great thermocouples. But at any moment that connection might be broken. The Beam would lose its power, and the fragments of Pluto would crash together again. Well, it was certain that none of its inimical life would survive that crash!

Hi lay gasping on the floor of the kiosk. He wondered numbly why none of the guards came, until he realized that they too, were distressed by the lack of air. Then he saw something bending over him—something monstrous, but he could not focus his bloodshot eyes. Slim strong hands grasped him. He realized that the monstrous thing was someone in a space suit, the air-tight, helmeted dress for moving about in airless space. He was being floated—for gravity was so slight—toward the airlock of the *Aegeida.*

A Plutonian bounded toward them, arms moving ineffectually in the rarefied air. He passed, not seeming to notice them. Other bodies lay on the floor, but barely touching. From one of these huddled lumps a hand shot out—a human hand, though coarse and bestial looking. The renegade Bilks seized the figure in the space suit by the ankle and attempted to trip it. But his hand slipped, and he lay there, chest heaving convulsively in the torment of air hunger, his mouth open and gasping like a fish out of water.

Hi was conscious of being pulled into the airlock, of the dull thud of a closing door, of a rush of glorious air. After a few minutes he was able to sit up. The bloody light still streamed through the ports. Hi saw that his rescuer was Cinda Mara, as he had thought.

"That fellow Bilks—" she tried to hide her tremulous reaction by assuming a matter-of-fact air— "He wanted my space suit. I dropped him a spare before closing the lock."

"And lucky for him if his oxygen plays out before our patrol picks him up!" Hi Buckram growled. "What I'd give to climb into a uniform now! I sure don't feel natural as Tycho Larus!"

"Hi, can you navigate the ship alone?"

"I can wiggle her out of this pit before something happens, and start her for home," Hi agreed, getting to his feet.

Four weeks later the black ship of sacrifice was sighted by a swift cruiser of the Interplanetary Flying Patrol. Hi let her commander in through the airlock, blushed as the officer's secretly amused glance took in the soiled robe on the figure in correct military salute.

"Corporal Buckram, sir!" Hi reported stiffly. "A little volunteer duty while on leave."

"Well, Corporal," drawled the commander, "suppose you stand at ease and tell me a little more about this. If our astronomers really told the truth then I'd say you'll be sporting a commission for whatever you did to those devils. By the way," he added in a lower, confidential tone, "who was that in here just a minute ago?"

"Oh that, sir? That was an angel," Hi grinned.

THE END

The City of Singing Flame

By Clark Ashton Smith

(Illustration by Paul)

We entered the city. My companion was in a veritable rhapsody of delight when he beheld the enormous buildings and the people.

The City of Singing Flame

By the Author of
"Marooned in Andromeda"
"An Adventure in Futurity"

FOREWORD

WE had been friends for a decade or more, and I knew Giles Angarth as well as anyone could purport to know him. Yet the thing was no less a mystery to me than to others at the time; and it is still a mystery.

Sometimes I think that he and Ebbonly had designed it all between them as a huge, insoluble hoax; that they are still alive somewhere, and are laughing at the world that has been so sorely baffled by their disappearance. And sometimes I make tentative plans to re-visit Crater Ridge and find if I can the two boulders mentioned in Angarth's narrative as having a vague resemblance to broken-down columns.

In the meantime no one has uncovered any trace of the missing men or has heard even the faintest rumor concerning them; and the whole affair, it would seem, is likely to remain a most singular and exasperating riddle.

Angarth, whose fame as a writer of fantastic fiction will probably outlive that of most other modern magazine contributors, had been spending the summer among the Sierras, and had been living alone till the artist Felix Ebbonly went to visit him. Ebbonly, whom I had never met, was well known for his imaginative paintings and drawings; and he had illustrated more than one of Angarth's novels. When neighboring campers became alarmed over the prolonged absence of the two men and the cabin was searched for some possible clue, a package addressed to me was found lying on the table; and I received it in due course of time, after reading many newspaper speculations regarding the double vanishment. The package contained a small, leather-bound notebook. Angarth had written on the flyleaf:

Dear Hastane:

You can publish this journal sometime, if you like. People will think it the last and wildest of all my fictions—unless they take it for one of your own. In either case, it will be just as well. Good-bye.

Faithfully,
Giles Angarth.

I am now publishing the journal, which will doubtless meet the reception he predicted. But I am not so certain myself, as to whether the tale is truth or fabrication. The only way to make sure will be to locate the two boulders; and anyone who has ever seen Crater Ridge, and has wandered over its miles of rock-strewn desolation, will realize the difficulties of such a task.

* * * *

THE purpose, at least one of the great purposes of science fiction, is to show in thrilling stories the infinity of possible worlds. To us, our own world seems not only normal but inevitable, and we come to believe that all existence must be somehow only variations of what we know.

Occasionally a master of words, possessed of a tremendous imagination, does give us a glimpse into other possible worlds. Poe did this and it brought him enduring fame. Clark Ashton Smith likewise does it, to the delight and wonder of our readers.

He is too good an artist to tell us everything he saw in the present story. But he does whet our imagination and stir us to desire to know more. How do these strange creatures live, what is their history, and how do they think and feel? Perhaps he will follow this story by a sequel and have Hastane follow his friends to the "City of Singing Flame?" If he does, let us hope he will return and record his adventures.

The Journal

July 31st, 1930. I have never acquired the diary-keeping habit—mainly, because of

my uneventful mode of existence, in which there has seldom been anything to chronicle. But the thing which happened this morning is so extravagantly strange, so remote from mundane laws and parallels, that I feel impelled to write it down to the best of my understanding and ability. Also, I shall keep an account of the possible repetition and continuation of my experience. It will be perfectly safe to do this, for no one who ever reads the record will be likely to believe it.

I had gone for a walk on Crater Ridge, which lies a mile or less to the north of my cabin near Summit. Though differing markedly in its character from the usual landscapes roundabout, it is one of my favorite places. It is exceptionally bare and desolate, with little more in the way of vegetation than mountain sun-flowers, wild currant-bushes, and a few sturdy wind-warped pines and supple tamaracks.

CLARK ASHTON SMITH

Geologists deny it a volcanic origin; yet its outcroppings of rough, nodular stone and enormous rubble-heaps have all the air of scoriac remains—at least, to my non-scientific eye. They look like the slag and refuse of Cyclopean furnaces, poured out in pre-human years to cool and harden into shapes of limitless grotesquery.

Among them are stones that suggest the fragments of primordial bas-reliefs, or small pre-historic idols and figurines; and others that seem to have been graven with lost letters of an indecipherable script. Unexpectedly there is a little tarn lying on one end of the long, dry Ridge—a tarn that has never been fathomed. The hill is an odd interlude among the granite sheets and crags, and the fir-clothed ravines and valleys of this region.

It was a clear, windless morning; and I paused often to view the magnificent perspectives of varied scenery that were visible on every hand—the titan battlements of Castle Peak, the rude masses of Donner Peak, with its dividing pass of hemlocks, the remote, luminous blue of the Nevada Mountains, and the soft green of willows in the valley at my feet. It was an aloof, silent world; and I heard no sound other than the dry, crackling noise of cicadas among the currant-bushes.

I strolled on in a zig-zag manner for some distance; and coming to one of the rubble-fields with which the Ridge is interstrewn, I began to search the ground closely, hoping to find a stone that was sufficiently quaint and grotesque in its form to be worth keeping as a curiosity. I had found several such in my previous wanderings.

Suddenly I came to a clear space amid the rubble, in which nothing grew—a space that was round as an artificial ring. In the center were two isolated boulders, queerly alike in shape, and lying about five feet apart. I paused to examine them. Their substance, a dull, greenish-grey stone, seemed to be different from anything else in the neighborhood; and I conceived at once the weird, unwarrantable fancy that they might be the pedestals of vanished columns, worn away by incalculable years till there remained only these sunken ends.

Certainly the perfect roundness and uniformity of the boulders was peculiar; and though I possess a smattering of geology I could not identify their smooth, soapy material.

My imagination was excited, and I began to indulge in some rather overheated fantasies. But the wildest of these was a homely commonplace in comparison with the thing that happened when I took a single step forward in the vacant space immediately between the two boulders. I shall try

to describe it to the utmost of my verbal ability; though human language is naturally wanting in words that are adequate for the delineation of events and sensations beyond the normal scope of human experience.

Nothing is more disconcerting than to miscalculate the degree of descent in taking a step. Imagine then what it was like to step forward on level, open ground, and find utter nothingness underfoot! I seemed to be going down into an empty gulf, and at the same time the landscape before me vanished in a swirl of broken images and everything went blind. There was a feeling of intense, hyperborean cold; and an indescribable sickness and vertigo possessed me, due, no doubt, to the profound disturbance of equilibrium. Also—either from the speed of my descent or for some other reason,—I was totally unable to draw breath.

My thoughts and feelings were unutterably confused, and half the time it seemed to me that I was falling *upward* rather than downward, or was sliding horizontally or at some oblique angle. At last I had the sensation of turning a complete somersault; and then I found myself standing erect on solid ground once more, without the least shock or jar of impact. The darkness cleared away from my vision, but I was still dizzy, and the optical images I received were altogether meaningless for some moments.

A Plunge Into Nothingness

WHEN finally I recovered the power of cognizance, and was able to view my surroundings with a measure of perception, I experienced a mental confusion equivalent to that of a man who might find himself cast without warning on the shore of some foreign planet. There was the same sense of utter loss and alienation which would assuredly be felt in such a case—the same vertiginous, overwhelming bewilderment, the same ghastly sense of separation from all the familiar environmental details that give color and form and definition to our lives and even determine our very personalities.

I was standing in the midst of a landscape which bore no degree or manner of resemblance to Crater Ridge. A long, gradual slope, covered with violet grass and studded at intervals with stones of monolithic size and shape, ran undulantly away beneath me to a broad plain with sinuous, open meadows and high, stately forests of an unknown vegetation whose pre-dominant hues were purple and yellow. The plain seemed to end in a wall of impenetrable golden-brownish mist, that rose with phantom pinnacles to dissolve on a sky of luminescent amber in which there was no sun.

In the foreground of this amazing scene, not more than two or three miles away, there loomed a city whose massive towers and mountainous ramparts of red stone were such as the Anakim of undiscovered worlds might build. Wall on beetling wall, and spire on giant spire, it soared to confront the heavens, maintaining everywhere the severe and solemn lines of a rectilinear architecture. It seemed to overwhelm and crush down the beholder with its stern and crag-like imminence.

As I viewed this city, I forgot my initial sense of bewildering loss and alienage, in an awe with which something of actual terror was mingled; and, at the same time, I felt an obscure but profound allurement, the cryptic emanation of some enslaving spell. But after I had gazed awhile, the cosmic strangeness and bafflement of my unthinkable position returned upon me; and I felt only a wild desire to escape from the maddeningly oppressive bizarrerie of this region and regain my own world. In an effort to fight down my agitation, I tried to figure out, if possible, what had really happened.

I had read a number of trans-dimensional stories—in fact, I had written one or two myself; and I had often pondered the possibility of other worlds or material planes which may co-exist in the same space with ours, invisible and impalpable to human senses. Of course, I realized at once that I had fallen into some such dimension. Doubtless, when I took that step forward

between the boulders, I had been precipitated into some sort of flaw or fissure in space, to emerge at the bottom in this alien sphere—in a totally different kind of space. It sounded simple enough in a way—but not simple enough to make the *modus operandi* anything but a brain-racking mystery.

In a further effort to collect myself, I studied my immediate surroundings with a close attention. This time, I was impressed by the arrangement of the monolithic stones I have spoken of, many of which were disposed at fairly regular intervals in two parallel lines running down the hill, as if to mark the course of some ancient road obliterated by the purple grass.

Turning to follow its ascent, I saw right behind me two columns, standing at precisely the same distance apart as the two odd boulders on Crater Ridge, and formed of the same soapy, greenish-gray stone! The pillars were perhaps nine feet high, and had been taller at one time, since the tops were splintered and broken away. Not far above them, the mounting slope vanished from view in a great bank of the same golden-brown mist that enveloped the remoter plain. But there were no more monoliths —and it seemed as if the road had ended with those pillars.

Inevitably I began to speculate as to the relationship between the columns in this new dimension and the boulders in my own world. Surely the resemblance could not be a matter of mere chance. If I stepped between the columns, could I return to the human sphere by a reversal of my precipitation therefrom? And if so, by what inconceivable beings from foreign time and space had the columns and boulders been established as the portals of a gateway between two worlds? Who could have used the gateway, and for what purpose?

My brain reeled before the infinite vistas of surmise that were opened by such questions.

HOWEVER, what concerned me most was the problem of getting back to Crater Ridge. The weirdness of it all, the monstrous walls of the nearby town, the unnatural hues and forms of the outlandish scenery, were too much for human nerves; and I felt that I should go mad if forced to remain long in such a milieu. Also, there was no telling what hostile powers or entities I might encounter if I stayed.

The slope and plain were devoid of animate life, as far as I could see; but the great city was presumptive proof of its existence. Unlike the heroes in my own tales, who were wont to visit the fifth dimension or the worlds of Algol with perfect *sang-froid*, I did not feel in the least adventurous; and I shrank back with man's instinctive recoil before the unknown. With one fearful glance at the looming city and the wide plain with its lofty, gorgeous vegetation, I turned and stepped back between the columns.

There was the same instantaneous plunge into blind and freezing gulfs, the same indeterminate falling and twisting, that had marked my descent into this new dimension. At the end I found myself standing, very dizzy and shaken, on the same spot from which I had taken my forward step between the greenish-grey boulders. Crater Ridge was swirling and reeling about me as if in the throes of earthquake; and I had to sit down for a minute or two before I could recover my equilibrium.

I came back to the cabin like a man in a dream. The experience seemed, and still seems, incredible and unreal; and yet it has overshadowed everything else, and has colored and dominated all my thoughts. Perhaps by writing it down I can shake it off a little. It has unsettled me more than any previous experience in my whole life; and the world about me seems hardly less improbable and nightmarish than the one that I have penetrated in a fashion so fortuitous.

Aug. 2nd. I have done a lot of thinking in the past few days—and the more I ponder and puzzle, the more mysterious it all becomes. Granting the flaw in space, which must be an absolute vacuum, impervious to air, ether, light and matter, how was it possible for me to fall into it? And having fallen in, how could I fall out—particularly into a sphere that has no certifiable relationship with ours?

But, after all, one process would be as

easy as the other, in theory. The main objection is, how could one move in a vacuum, either up or down or backward or forward? The whole thing would baffle the comprehension of an Einstein; and I do not feel that I have even approached the true sclution.

Also, I have been fighting the temptation to go back, if only to convince myself that the thing really occurred. But, after all, why shouldn't I go back? An opportunity has been vouchsafed to me such as no man may ever have been given before; and the wonders I shall see and the secrets I shall learn are beyond imagining. My nervous trepidation is inexcusably childish under the circumstances.

Aug. 3rd. I went back this morning, armed with a revolver. Somehow, without thinking that it might make a difference, I did not step in the very middle of the space between the boulders. Undoubtedly as a result of this, my descent was more prolonged and impetuous than before, and seemed to consist mainly of a series of spiral somersaults. It must have taken me minutes to recover from the ensuing vertigo; and when I came to, I was lying on the violet grass.

This time, I went boldly down the slope; and keeping as much as I could in the shelter of that bizarre purple and yellow vegetation, I stole toward the looming city. All was very still; and there was no breath of wind in those exotic trees, which appeared to imitate, in their lofty upright boles and horizontal foliage, the severe architectural lines of the Cyclopean buildings.

I had not gone far when I came to a road in the forest—a road paved with stupendous blocks of stone at least twenty feet square. It ran toward the city. I thought for awhile that it was wholly deserted—perhaps disused; and I even dared to walk upon it, till I heard a noise behind me and turning saw the approach of several singular entities. Terrified, I sprang back and hid myself in a thicket, from which I watched the passing of those creatures, wondering fearfully if they had seen me. Apparently my fears were groundless, for they did not even glance at my hiding-place.

It is hard for me to describe or even visualize them now, for they were totally unlike anything that we are accustomed to think of as human or animal. They must have been ten feet tall, and they were moving along with colossal strides that took them from sight in a few instants beyond a turn of the road. Their bodies were bright and shining, as if encased in some sort of armor; and their heads were equipped with high, curving appendages of opalescent hues which nodded above them like fantastic plumes, but may have been antennae or other sense-organs of a novel type.

Trembling with excitement and wonder, I continued my progress through the richly-colored undergrowth. As I went on, I perceived for the first time that there were no shadows anywhere. The light came from all portions of the sunless amber heaven, pervading everything with a soft, uniform luminosity.

All was motionless and silent, as I have said before; and there was no evidence of bird, insect or animal life in all this preternatural landscape. But when I had advanced to within a mile of the city (as well as I could judge the distance in a realm where the very proportions of objects were unfamiliar) I became aware of something which at first was recognizable as a vibration rather than a sound.

There was a queer thrilling in my nerves, the disquieting sense of some unknown force or emanation flowing through my body. This was perceptible for some time before I heard the music; but having heard it, my auditory nerves identified it at once with the vibration.

It was faint and far-off, and seemed to emanate from the very heart of the titan city. The melody was piercingly sweet, and resembled at times the singing of some voluptuous feminine voice. However, no human voice could have possessed the unearthly pitch, the shrill, perpetually sustained notes that somehow suggested the light of remote worlds and stars translated into sound.

Ordinarily I am not very sensitive to music; I have even been reproached for not reacting more strongly to it. But I had

not gone much further when I realized the peculiar mental and emotional spell which the far-off sound was beginning to exert upon me. There was a siren-like allurement which drew me on forgetful of the strangeness and potential perils of my situation; and I felt a slow, drug-like intoxication of brain and senses. In some insidious manner, I know not how nor why, the music conveyed the ideas of vast but attainable space and altitude, of superhuman freedom and exultation; and it seemed to promise all the impossible splendors of which my imagination has vaguely dreamt.

An Amazing World

THE forest continued almost to the city walls. Peering from behind the final boscage, I saw their overwhelming battlements in the sky above me, and noted the flawless jointure of their prodigious blocks. I was near the great road, which entered an open gate that was large enough to admit the passage of behemoths. There were no guards in sight; and several more of the tall, gleaming entities came striding along and went in as I watched. From where I stood, I was unable to see inside the gate; for the wall was stupendously thick. The music poured from that mysterious entrance in an ever-strengthening flood and sought to draw me on with its weird seduction, eager for unimaginable things.

It was hard to resist, hard to rally my will-power and turn back. I tried to concentrate on the thought of danger—but the thought was tenuously unreal. At least I tore myself away and retraced my footsteps, very slowly and lingeringly, till I was beyond reach of the music. Even then the spell persisted, like the effects of a drug; and all the way home I was tempted to return and follow those shining giants into the city.

Aug. 5th. I have visited the new dimension once more. I thought I could resist that summoning music; and I even took some cotton-wadding along with which to stuff my ears if it should affect me too strongly. I began to hear the supernal melody at the same distance as before, and was drawn onward in the same manner. But this time I entered the open gate!

I wonder if I can describe that city. I felt like a crawling ant upon its mammoth pavements, amid the measureless Babel of its buildings, of its streets and arcades. Everywhere there were columns, obelisks, and the perpendicular pylons of fane-like structures that would have dwarfed those of Thebes and Heliopolis.

And the people of the city! How is one to depict them or give them a name! I think that the gleaming entities I first saw are not the true inhabitants, but are only visitors—perhaps from some other world or dimension, like myself. The real people are giants too; but they move slowly, with solemn, hieratic paces. Their bodies are nude and swart and their limbs are those of caryatides,—massive enough, it would seem, to uphold the roofs and lintels of their own buildings. I fear to describe them minutely: for human words would give the idea of something monstrous and uncouth; and these beings are not monstrous but have merely developed in obedience to the laws of another evolution than ours, the environmental forces and conditions of a different world.

Somehow, I was not afraid when I saw them—perhaps the music had drugged me till I was beyond fear. There was a group of them just inside the gate; and they seemed to pay me no attention whatever as I passed them. The opaque, jet-like orbs of their huge eyes were impassive as the carven eyes of andro-sphinxes; and they uttered no sound from their heavy, straight, expressionless lips, perhaps they lack the sense of hearing; for their strange, semi-rectangular heads were devoid of anything in the nature of external ears.

I followed the music, which was still remote and seemed to increase little in loudness. I was soon overtaken by several of those beings whom I had previously seen on the road outside the walls; and they passed me quickly and disappeared in the labyrinth of buildings. After them there came other beings of a less gigantic kind, and without the bright shards or armor worn by the first-comers. Then, overhead,

two creatures with long, translucent, blood-colored wings, intricately veined and ribbed, came flying side by side and vanished behind the others. Their faces, featured with organs of unsurmisable use, were not those of animals; and I felt sure that they were beings of a high orders of development.

I saw hundreds of those slow-moving, somber entities whom I have identified as the true inhabitants. None of them appeared to notice me. Doubtless they were accustomed to seeing far weirder and more unusual kinds of life than humanity. As I went on, I was overtaken by dozens of improbable-looking creatures, all going in the same direction as myself, as if drawn by the same siren melody.

DEEPER and deeper I went into the wilderness of colossal architecture, led by that remote, ethereal, opiate music. I soon noticed a sort of gradual ebb and flow in the sound, occupying an interval of ten minutes or more; but by imperceptible degrees it grew sweeter and nearer. I wondered how it could penetrate that manifold maze of builded stone and be heard outside the walls.

I must have walked for miles, in the ceaseless gloom of those rectangular structure that hung above me, tier on tier, at an awful height in the amber zenith. Then, at length, I came to the core and secret of it all. Preceded and followed by a number of those chimerical entities, I emerged on a great square in whose center was a temple-like building more immense than the others. The music poured, imperiously shrill and loud, from its many-columned entrance.

I felt the thrill of one who approaches the sanctum of some hierarchal mystery, when I entered the halls of that building. People who must have come from many different worlds or dimensions, went with me and before me along the titanic colonnades whose pillars were graven with indecipherable runes and enigmatic bas-reliefs.

Also, the dark, colossal inhabitants of the town were standing or roaming about, intent, like all the others, on their own affairs. None of these beings spoke, either to me or to one another; and though several eyed me casually, my presence was evidently taken for granted.

There are no words to convey the incomprehensible wonder of it all. And the music? I have utterly failed to describe that, also. It was as if some marvellous elixir had been turned into sound-waves—an elixir conferring the gift of superhuman life, and the high, magnificent dreams which are dreamt by the immortals. It mounted in my brain like a supernal drunkenness as I approached the hidden source.

I do not know what obscure warning prompted me now to stuff my ears with cotton before I went any further. Though I could still hear it, still feel its peculiar, penetrant vibration, the sound became muted when I had done this; and its influence was less powerful henceforward. There is little doubt that I owe my life to this simple and homely precaution.

The endless rows of columns grew dim for awhile as the interior of a long basaltic cavern; and then, at some distance ahead, I perceived the glimmering of a soft light on the floor and pillars. The light soon became an overflooding radiance, as if gigantic lamps were being lit in the temple's heart; and the vibrations of the hidden music pulsed more strongly in my nerves.

The hall ended in a chamber of immense, indefinite scope, whose walls and roof were doubtful with unremoving shadows. In the center, amid the pavement of mammoth blocks, there was a circular pit above which there seemed to float a fountain of flame that soared in one perpetual, slowly lengthening jet. This flame was the sole illumination; and also it was the source of the wild, unearthly music. Even with my purposely deafened ears, I was wooed by the shrill and starry sweetness of its singing; and I felt the voluptuous lure and the high, vertiginous exaltation.

I knew immediately that the place was a shrine, and that the trans-dimensional beings who accompanied me were visiting pilgrims. There were scores of them—perhaps hundreds; but all were dwarfed in the cosmic immensity of that chamber. They were gathered before the flame in various attitudes

of worship; they bowed their exotic heads or made mysterious gestures of adoration with unhuman hands and members. And the voices of several, deep as booming drums, or sharp as the stridulation of giant insects, were audible amid the singing of the fountain.

Spell-bound, I went forward and poined them. Enthralled by the music and by the vision of the soaring flame, I paid as little heed to my outlandish companions as they to me.

The fountain rose and rose, till its light flickered on the limbs and features of throned, colossal statues behind it—of heroes or gods or demons from the earlier cycles of alien time, staring in stone from a dusk of illimitable mystery. The fire was green and dazzling, it was pure as the central flame of a star; it blinded me, and when I turned my eyes away, the air was filled with webs of intricate color, with swiftly changing arabesques whose numberless, unwonted hues and patterns were such as no mundane eye had ever beheld. I felt a stimulating warmth that filled my very marrow with intenser life.

The Lure of the Flame

THE music mounted with the flame; and I understood now its recurrent ebb and flow. As I looked and listened, a mad thought was born in my mind—the thought of how marvellous and ecstatical it would be to run forward and leap headlong into the singing fire. The music seemed to tell me that I should find in that moment of flaring dissolution all the delight and triumph, all the splendor and exaltation it had promised from afar. It besought me, it pleaded with tones of supernal melody; and despite the wadding in my ears, the seduction was well-nigh irresistible.

However, it had not robbed me of all sanity. With a sudden start of terror, like one who has been tempted to fling himself from a high precipice, I drew back. Then I saw that the same dreadful impulse was shared by some of my companions. The two entities with scarlet wings, whom I have previously mentioned, were standing a little apart from the rest of us. Now, with a great fluttering, they rose and flew toward the flame like moths toward a candle. For a brief moment the light shone redly through their half-transparent wings, ere they disappeared in the leaping incandescence, which flared briefly and then burned as before.

Then, in rapid succession, a number of other beings who represented the most divergent trends of biology, sprang forward and immolated themselves in the flame. There were creatures with translucent bodies, and some that shone with all the hues of the opal; there were winged colossi, and titans who strode as with seven-league boots; and there was one being with useless, abortive wings, who crawled rather than ran, to seek the same glorious doom as the rest. But among them there were none of the city's people: these merely stood and looked on, impassive and statue-like as ever.

I saw that the fountain had now reached its greatest height and was beginning to decline. It sank steadily but slowly to half its former elevation. During this interval there were no more acts of self-sacrifice; and several of the beings beside me turned abruptly and went away, as if they had overcome the lethal spell.

One of the tall, armored entities, as he left, addressed me in words that were like clarion-notes, with unmistakable accents of warning. By a mighty effort of will, in a turmoil of conflicting emotions, I followed him. At every step the madness and delirium of the music warred with my instincts of self-preservation. More than once I started to go back. My homeward journey was blurred and doubtful as the wanderings of a man in an opium-trance; and the music sang behind me and told me of the rapture I had missed, of the flaming dissolution whose brief instant was better than aeons of mortal life.

Aug. 9th. I have tried to go on with a new story, but have made no progress. Anything that I can imagine, or frame in language, seems flat and puerile beside the world of unsearchable mystery to which I have found admission. The temptation to

return is more cogent than ever, the call of that remembered music is sweeter than the voice of a loved woman. And always I am tormented by the problem of it all, and tantalized by the little which I have perceived and understood. What forces are these whose existence and working I have merely apprehended? Who are the inhabitants of the city? And who are the beings that visit the enshrined flame? What rumor or legend has drawn them from outland realms and ulterior planets to that place of blissful danger and destruction? And what is the fountain itself, and what the secret of its lure and its deadly singing? These problems admit of infinite surmise, but no conceivable solution.

I am planning to go back once more—but not alone. Someone must go with me this time, as a witness to the wonder and the peril. It is all too strange for credence—I must have human corroboration of what I have seen and felt and conjectured. Also, another might understand where I have failed to do more than apprehend.

Who shall I take? It will be necessary to invite someone here from the outer world—someone of high intellectual and aesthetic capacity. Shall I ask Philip Hastane, my fellow fiction-writer? Hastane would be too busy, I fear. But there is the Californian artist, Felix Ebbonly, who has illustrated some of my fantastic novels.

Ebbonly would be the man to see and appreciate the new dimension, if he can come. With his bent for the bizarre and the unearthly, the spectacle of that plain and city, the Babelian buildings and arcades, and the temple of the flame, will simply enthrall him. I shall write immediately to his San Francisco address.

Aug. 12th. Ebbonly is here—the mysterious hints in my letter regarding some novel pictorial subjects along his own line, were too provocative for him to resist. Now I have explained full and have given him a detailed account of my adventures. I can see that he is a little incredulous, for which I hardly blame him. But he will not remain incredulous very long, for tomorrow we shall visit together the city of the singing flame.

Aug. 13th. I must concentrate my disordered faculties, I must choose my words and write with exceeding care. This will be the last entry in my journal, and the last writing I shall ever do. When I have finished, I shall wrap the journal up and address it to Philip Hastane, who can make such disposition of it as he sees fit.

I took Ebbonly into the other dimension today. He was impressed, even as I had been, by the two isolated boulders on Crater Ridge.

"They look like the guttered ends of columns established by pre-human gods," he remarked. "I begin to believe you now."

I told him to go first, and indicated the place where he should step. He obeyed without hesitation, and I had the singular experience of seeing a man melt into utter, instantaneous nothingness. One moment he was there—and the next, there was only bare ground and the far-off tamaracks whose view his body had obstructed. I followed, and found him standing in speechless awe on the violet grass.

"This," he said at last, "is the sort of thing whose existence I have hitherto merely suspected, and have never even been able to hint in my most imaginative drawings."

WE spoke little as we followed the range of monolithic boulders toward the plain. Far in the distance, beyond those high and stately trees with their sumptuous foliage, the golden-brown vapors had parted, showing vistas of an immense horizon; and past the horizon were range on range of gleaming orbs and fiery, flying motes in the depth of that amber heaven. It was as if the veil of another universe than ours had been drawn back.

We crossed the plain, and came at length within ear-shot of the siren music. I warned Ebbonly to stuff his ears with cotton-wadding; but he refused.

"I don't want to deaden any new sensations which I may experience," he observed.

We entered the city. My companion was in a veritable rhapsody of artistic delight when he beheld the enormous buildings and the people. I could see, too, that the music

had taken hold upon him: his look soon became fixed and dreamy as that of an opium-eater. At first he made many comments on the architecture and the various beings who passed us, and called my attention to details which I had not perceived heretofore.

However, as we drew nearer to the temple of the flame, his observational interest seemed to flag, and was replaced by more and more of an ecstatic inward absorption. His remarks became fewer and briefer; and he did not even seem to hear my questions. It was evident that the sound had wholly bemused and bewitched him.

Even as on my former visit, there were many pilgrims going toward the shrine—and few that were coming away from it. Most of them belonged to evolutionary types that I had seen before. Among those that were new to me, I recall one gorgeous creature with golden and cerulean wings like those of a giant lepidopter and scintillating, jewel-like eyes that must have been designed to mirror the glories of some Edenic world.

I too felt, as before, the captious thralldom and bewitchment, the insidious, gradual perversion of thought and instinct, as if the music were working in my brain like a subtle alkaloid. Since I had taken my usual precaution, my subjection to the influence was less complete than that of Ebbonly; but nevertheless it was enough to make me forget a number of things — among them, the initial concern which I had felt when my companion refused to employ the same mode of protection as myself. I no longer thought of his danger or my own, except as something very distant and immaterial.

The streets were like the prolonged and bewildering labyrinth of a nightmare. But the music led us forthrightly; and always there were other pilgrims. Like men in the grip of some powerful current, we were drawn to our destination.

As we passed along the hall of gigantic columns and neared the abode of the fiery fountain, a sense of our peril quickened momentarily in my brain, and I sought to warn Ebbonly once more. But all my protests and remonstrances were futile: he was deaf as a machine, and wholly impervious to anything but the lethal music. His expression and his movements were those of a somnambulist. Even when I seized and shook him with such violence as I could muster, he remained oblivious of my presence.

The throng of worshippers was larger than upon my first visit. The jet of pure, incandescent flame was mounting steadily as we entered, and it sang with the pure ardor and ecstacy of a star alone in space. Again, with ineffable tones, it told me the rapture of a moth-like death in its lofty soaring, the exultation and triumph of a momentary union with its elemental essence.

The flame rose to its apex; and even for me, the mesmeric lure was well-night irresistible. Many of our companions succumbed; and the first to immolate himself was the giant lepidopterous being. Four others, of diverse evolutional types, followed in appallingly swift succession.

In my own partial subjection to the music, my own effort to resist that deadly enslavement, I had almost forgotten the very presence of Ebbonly. It was too late for me to even think of stopping him, when he ran forward in a series of leaps that were both solemn and frenzied, like the beginning of some sacerdotal dance, and hurled himself headlong into the flame. The fire enveloped him, it flared up for an instant with a more dazzling greenness; and that was all.

Slowly, as if from benumbed brain-centers, a horror crept upon my conscious mind, and helped to annul the perilous mesmerism. I turned, while many others were following Ebbonly's example, and fled from the shrine and from the city. But somehow the horror diminished as I went; and more and more I found myself envying my companion's fate, and wondering as to the sensations he had felt in that moment of fiery dissolution . . . .

Now, as I write this, I am wondering why I came back again to the human world. Words are futile to express what I have beheld and experienced, and the change that has come upon me beneath the play of in-

calculable forces in a world of which no other mortal is even cognizant.

Literature is nothing more than the shadow; and life, with its drawn-out length of monotonous, reiterative days, is unreal and without meaning now in comparison with the splendid death which I might have had —the glorious doom which is still in store. I have no longer any will to fight the ever-insistent music which I hear in memory. And—there seems to be no reason at all why I should fight it out. Tomorrow I shall return to the city.

THE END.

FOR THE AUGUST ISSUE

we offer

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And others in the

AUGUST 1931 WONDER STORIES

ON ALL NEWSSTANDS JULY 1

The Red Spot of Jupiter

By Dennis McDermott

(Illustration by Marchioni)

With a wild wrench he tears free, stares wildly at the uprooted plants that still writhe greedily.

ELECTRO-MAGNETIC braking-discs heated cherry-red under the strain of slowing its awful speed, the Martian liner swept into its berth atop the mile-high, terraced city of New York.

A carriage of polished dural shot across the platform and vanished in the gaping side of the mighty streamlined ship lying in the launching ways, opposite the incoming Martian ship.

Dull thunder split the air, as the great rocket hurtled out into the darkness, the golden vapors from its tail slowly spreading into faint mist behind it—out-bound, with a Universe before it.

A uniformed guard resumed his measured pacing before the lift entrances. Two little trickles of humanity entered and left the sleeping Martian liner, while husky attendants in the blue of the Interplanetary Lines lifted into their waiting places new cylinders of the synthetic element, astron. Little knots of people formed and disrupted, little groups held by a common interest—botanists bound for the royal floral preserves of Laxa; engineers on their way to take their places with those who had striven in vain to dam the mightiest river of all Venus, Murr, the Thunderer; students for the universities of Laxa and Ulda; powermen for the desert solar-plants; trippers and tourists with scrip enough to dare the rates of the Interplanetary Lines.

Other lone figures there were, sun-cured by travel in far-flung places, wanderers of the planetary by-paths. With the gong, all was still and barren in the launching ways. A muffled voice raised in shouted question, a tardy port clanged, and with a thunderous drum of energy another leviathan of space was gone.

* * *

Out beyond the Moon, the space-ship *Hermes* hurtles toward Mars and the outer Solar System. Courier of the god-named planets, driven by the unleashed energy of disintegrating atoms—energy of astron—it cleaves its timeless path through star-lit emptiness. Keen eyes scan the space-charts for occasional meteor swarms, and now and again a rumble of jets and an instant's golden glow in space tells of danger past. A few faces showed in the ports as the Moon swept by beneath, craters and mighty gorges showing dimly in the coppery Earth-shine. Only a few watched, for most men know the Moon better than their own planet. Still fewer gaze at the spangled vault that for three years will unfold about them—nebulae, stellar giants of vivid color, the blazing circlet of the Milky Way.

So the great interplanetary express goes forth in its mad rush to span space, out into the void where icy Neptune swims, and those other planets beyond—planets of the outer darkness. And deep in the ship's heart is a little lead-walled room, lit with a never-dying glare of cold light, where, behind

THOSE who have been privileged to travel into remote corners of the earth and see new forms of life, a sense of the wonder and diversity of nature has come with years. But the sights that these explorers have seen will be commonplace as compared to what explorers to other planets will see. For we will have then the great fruitfulness of nature working under conditions entirely different from anything occurring on earth.

Many readers have possibly sneered at some of the descriptions of extra-terrestrial life that have appeared in our pages. "It's very improbable," they say, "that these monstrosities could exist." But life itself is improbable, and we don't doubt the imagination of man is unable to conceive of the infinite diversity of life forms that nature may produce.

The present story by a new and promising author, may, if our readers like it, be the first of a series of interplanetary adventures involving Lem Gulliver and showing strange and mysterious life on other worlds. We would be glad to get our readers' comments.

time-locked doors, a single man of Earth sits brooding—remembering.

He is a man of brute force and quick passion—black-browed, shaggy-maned, adhering to the matted beard that, like him, has long been outlawed by the races of the inner planets. In the days of the first space-lines he had been master of a great new ship, had betrayed it and fled from port to port of space, leaving death and disorder in his wake.

And now he sits and thinks—of Venus, and a woman in the gardens of Laxa, beneath the very eyes of the royal guards. He thinks of Earth, and long weeks of stealthy flight and cold terror in the lawless shadowland of the lower levels; and of those other rabbit-warrens of dimly luminous corridors, deep in the bowels of the Moon, where little fearful bands of hunted creatures fought and fed, bred and died among slimy things that dripped light; and of desert Mars, with its great lanes of green and its cities of low red rock, buried at the hubs whence the great rivers of vegetation rise and trickle out into the red wastes of wind-tossed sand. He thinks of Mars, and capture!

DENNIS McDERMOTT

In his mind it all lives again. A crimson shadow in a crimson land, he slips like a wraith through deserted streets, clinging close to the low walls, starting in terror from open windows, the rich red blood of Earth on his hands and his face, and its warm, sweet-salt taste in his mouth, blood of him who had thought him a weakling, and whom he had broken like a twig in his two hands! Then from a shadowed doorway a cloaked figure steps, turns with a moment's answered twitter to someone hidden in the shadow, wheels with a flare of black and scarlet—an officer of the Martian police!

No time, no thought for flight. He leaps, stoops beneath the startled flurry of sword and ray-pistol, drives straight forward with his mighty fist—like a thunderbolt strikes the blank white space between those goggling eyes!

Pagh! Like the shell of an egg the thing breaks, with a little taut pop and plash of brain as his fist bursts through, slimy and hot, squirming brain-stuff fouling his opened palm! For a long instant he struggles to free his hand from the paper-thin skull that clutches at his wrist and drags with the full weight of a falling body at his wounded arm. Then he is free, the pale green blood of the Martian dripping thinly from hand and arm—watery stuff, not strong and hot like the crimson blood of Earth.

IT is an instant too long. A yammering shriek of rage and frenzied hate shatters the shielding silence! Bright, stabbing light splits the shadow, blinding him. Dumbly he clutches at his head, where an ear has been seared to a twisted cinder, stands for an instant, then ducks and drives at the twittering form that hurtles from the shadow of the doorway—that damned Martian's woman!

With his wounded right arm he strikes up the ray-gun that again turns night to day. With his left he strikes out, straight from the shoulder with a blow that his mighty Earth-born muscles give the power of a lightning-stroke. The twitter dies in a gurgling gasp, there is a brittle snap of ribs as a soft, bulging chest caves under his great fist, and now his right drives again, and again an egg-shell skull shatters and pale-green brain-stuff flows slowly down over blank, goggling eyes.

A moment he stays, to seize the ray-guns and the short-sword, then melts into the darkness as the street wakes into a frightened clamor of timorous twittering and the flare of ray-bursts. A few hurried seconds

of a hurried life—but the hell-cat of a Martian girl has marked him!

They caught him, that very night, as he slunk in the shadows that fled before the racing Martian moon that darted through the heavens. Two fell before his fists, after they had exploded his pistols in his hands and fused his sword by his side, but in the flurry of soft bodies a keen needle jabbed, once, and again, and his strength flowed out into the red shadows.

Martians do not kill a criminal—oh, no—they cure him! But the girl had been the daughter of a high police official—damned jade, messing about in the dark with young police officers—and he was a man not unknown or unwanted in other cities and on other planets. Bad luck always came from killing a Martian. His pal Red had said that, many a time, in the labyrinthine Moon-caves. No truer word had the old outlaw ever said—*he* could prove it—his first Martian and his first capture, since the old days when he was just a green, scared kid knifing a man for his scrip in the fifth level of old New York.

He'd always been lucky—and now they were sending him to Jupiter, to the little innermost moon, to take his place with those marooned, bestial outcasts of three planets whose luck had fallen down on them when they needed it. Haw! Luck! Gulliver's luck, they called it—*his* luck—in every rat-hole and fox-den of the Solar System, wherever his name was known! And now it had slipped out on him, like it always did when a guy killed a Martian.

Gulliver's luck! Funny, the guard had slipped him a couple of books, kids' books, down the food-tube. Nothing but a kid himself, that guard. Old books they were, and hard to read, copied off in short-hand on this new vellum from rotting volumes in some library, where the fragile pages of collodion-covered yellow paper turned slowly beneath their glass cases. There were pictures too, old pictures, that someone had photographed and sneaked out—funny-looking people and animals and such. "Alice in Wonderland" was one of them—just a crazy kids' book, but kind of hard to understand. The other one was different, more the sort of thing he could get hold of—"Gulliver's Travels".

Funny, he was Gulliver too, and he sure had traveled some—more than that old Gulliver in the book. *He'd* had luck too, Gulliver's luck, what with giants and little pigmy people and talking horses, and those other crazy scientists, and those others with the flying cities. But nothing like what he had seen and heard and been through, here in this old Solar System! What were talking horses against grown-up bugs like those in the swamps of Venus—bugs that go into a fight like a regular army? What were these big space-ships but flying cities—flying further and faster than any of those in the book? And as for giants, or things like those little people—pshaw! Think they could do *him* in, like they did that old Gulliver in the book? Let 'em try it! Still and all, he was a good man in a scrape, book or no book, that old guy. He was a Gulliver, and he had Gulliver's luck!

So his thoughts ran as the huge liner throbbed its course among the stars—thoughts of his own rough life, and of the life of another Gulliver of Earth, a man of fantasy, of fiction, conceived by a master satirist nearly thirteen centuries before his birth.

Sometimes he thought of that living tomb ahead, where he must fight for food and shelter and life itself among the dregs of three planets—hairy brutes like himself from Earth and the Moon, tall gods without emotion from Venus, little fragile Martians that had run amuck under the strain of conditions on other planets than their own. Once, only once, police landed there to take off a man who had been pardoned, and it was nip and tuck for a while! He'd been a ship-master then, in charge of a government ship, a real captain in the service of the League.

Sometimes he wondered why he ever gave it all up and wrecked his ship for what he could salvage. He had been drunk, and sore too, sore over some woman, some woman on Venus—but that was long over, and he'd had some good times and good hauls since then, plenty of them! So here he was, cooped up in this leaden ray-proof room,

waiting for them to take him off and drop him on a space-island full of mad beasts. Bet that never happened to the old Gulliver! Still, he was a great old guy, and you never can tell what might have happened that he didn't feel like putting in writing. He knew how it was! And Gulliver's luck wasn't new—not by a long shot!

Gulliver's Strategy

MARS grew and blotted out the stars, an orange-red ball, snow-capped and penciled with wide lines and dots of grey-green. The mighty ship spawned in mid-space and went its silent way, a little plummet of polished metal dropping down past the two wheeling moons of Mars to the great Martian metropolis of Kulal at the tip of the Syrtia Major. Then all was tense, and a subdued thrill of excitement crept through the silent throng that lined the observation ports. It never fails to thrill passengers and even the crew and officers when a liner passes through the belt of asteroids.

The ship had raised a little above the plane of the ecliptic, in order to pass well above the main belt, where the tiny "pocket-planets" were thickest and most dangerous. Many a man had died an awful death in emptiness as his ship careened, a shattered hulk, from a dark shape in the blackness. Now, below and on every side, they were showing as sunlight and light of the space-ship's great light-beams bathed them, little fainter dots of moving light against the star-flecked heavens. Passengers and crew alike clutched at the guard-straps for safety as the ship lurched under the rattle of deflecting jets.

Barely twenty miles away one of the smaller asteroids swept by—in the binoculars a dead waste of powdered pumice like the Moon. Men have been exiled here, and cast away by the misadventure of shipwreck, but none have told the tale. Clear from Mars to Jupiter, and beyond, this belt of scattered pigmy planets spread—stepping-stones of the Solar System.

Many a man of the early explorers and adventurers has laid his posts here in carefully charted orbits, and then, years or decades later, has worked his tedious way out from rock to rock in space, out toward Jupiter and the greater Universe beyond. But now jets drum and rattle their message of safety, and the dancing specks of pale light thin as a new form looms ahead in the opening heavens—Jupiter, mightiest of the planets.

Now, in the little lead room at the ship's heart, a thin, invisible vapor is hissing through unseen openings, and a sweet scent of oblivion permeates the air. The bearded form sinks slowly in seeming sleep. A moment passes, and then a second gas hisses through pin-hole ducts, and in the air a faint white smoke forms and settles slowly in fine dust over the quiet form.

The door recedes, revealing walls of ten-foot lead, impervious to the ray-guns of rescuing or escaping criminals. Men come in, four of them, bundled in unwieldly space-suits that nearly treble their weight. They waddle to the sleeping prisoner, push and pull him into a suit like their own, but lacking the charge-belt and twin ray-pistols. A little flat-topped carriage on silent wheels purrs into the room behind them, the prisoner is lifted on it, and they leave him and vanish down the corridor.

After a long moment the still figure stirs, raises its head ever so slightly, listening. It rolls from the carriage, lands with a little thud on its padded feet, shuffles cunningly into another room across the narrow corridor. Soon it returns, thrusting a charge-belt and pistols into the ample pockets of the suit, climbs with difficulty upon the little carriage, and sinks again in feigned sleep, none too soon.

A bell rings harshly and like a phantom the gleaming carriage speeds down the corridor, winds its way to the outer skin of the ship's hull, where a sealed tube has opened. Quickly its end rises, tilting the still form into the waiting air-lock, which clicks shut and seals automatically. In the bow of the ship, a voice shouts, echoing from corridor to corridor over the loud-speakers. From the stern another answers. There is a barely perceptible lurch, a clang of scraping metal, and the great ship has spawned again.

In the single cabin of the tiny transport, four men gather round the controls and peer into the darkness ahead, regardless of the still form on the berth behind them. They talk, in the soft, slurred words of the thirty-first century—endings dropped, rough contractions used, grammar of the classics made subordinate to speed and universality of expression. Their voices are muffled by the padded insulation of the walls, helmets removed and hanging on their backs in the safety of their ship.

"Titan first, Cap?"

"No. We'll run him right through and then go back to the post. We don't have to check this one through for inspection—he's travelin' cold-storage. That is—unless we have to refuel. Got enough of the stuff?"

"Just a minute, 'till I look at the gauge. Sure, plenty. Six extra shells of astron an' a spare detonator. O.K. with you, Cap?"

"Sure. Say, Fred, what was that you took from the guy, there? Books? Give 'em here a minute."

"Yeah. I slipped 'em to him through the food-tube—loose vellum, no metal. I found 'em on a library smuggler last trip—a trusty goin' out to Titan for a year or so, for sellin' old books without a license. They're kids' books—real old ones that you can't get near outside a library, 'less you have someone to bootleg you one. I thought he might like 'em, bein' there all to himself. No harm done, far's I can see."

"Oh, no, naturally not! Suppose there was a poison-sheet in one of 'em—where'd we be now? I ask you that!"

"Not a chance, Cap. I gave each page the once-over an' dipped it in his food. He's alive, ain't he? Besides, how could he get us after we doped him?"

"OH, sure, he's plenty alive. But wait 'till he hits that hell down there—maybe that'll be another story! Still, he's plenty husky, an' I suppose most of 'em either know him or have his rep. There can't be very many who don't know all about Black Lem Gulliver, who cracked up the *Titan* for salvage on her first trip."

"Say, Cap. That's another funny thing. Look here. This is one of the books I let him have—see, 'Gulliver's Travels'. Funny, ain't it? Lemuel Gulliver same as him. Maybe they're related, huh?"

"Maybe, but you won't catch him braggin' about it any, not if I know Black Lem! What time you got?"

"Twenty-forty. Be there in an hour. Goin' to give him a knife or somethin', 'fore you drop him? He'll need it."

"Sure, drop one in the cubby before you put him in. Frank, you go down in under and get the gas-tanks attached. We don't want to drop him into that place asleep! And Bill, you crawl aft and put a couple of those spare shells in the ways. We'll need them to get back. Then I can tip 'em in when the time comes."

"Say, Cap."

"What's the matter, Bill?"

"Better watch your step. This place is pretty close to the limit, an' if you have to use full power to get clear of Jupiter, we may not make Titan."

"I'll watch it up. We can't risk that for any crook alive! Hank, you act dopey. Poker last sleep-period?"

"Yeah, Cap. Say, that's some game, for an old-timer! Beats these new three-way chess-sets for speed by a light-year. An' it isn't a high-brow game, like chess, either."

"Oh, sure. I ain't kickin'—play it myself when I get a chance. But it won't look so good when we hit Titan. Go on an' crawl into the bunk—that one up over him. I'll wake you up when we get ready to dump him, if you want to see him sprawl and swim."

"O.K., Cap. Thanks a lot."

"All right with me, Hank."

For ten minutes, twenty, all is quiet. Below in the cubby Fred shuffles around attaching nozzles to the tanks of antidote for the sleep-gas. Aft, Bill is wedged between the jets, muscling two heavy shells of astron up into the rack that will tip them into the firing-chambers when the time comes. Hank is sprawled like a frog on his stomach in the canvas bunk, snoring. The lights off, to cut down the reflection from the cabin, Cap jockeys his firing lever. Meteors are pretty thick for comfort near Jupiter.

And now a tiny white disk swims out from behind the shielding bulk of the great planet, and Cap fairly glues himself to the controls. Behind him, a still form wakes into quick, stealthy life—the prisoner, Gulliver. On his back, he bends a knee and thrusts straight up for the sleeping man above, with all his great strength, straight for his stomach—a vulnerable spot in any race. A sick grunt and weak groan, and it is all over.

Cap wheels, grabbing at his ray-gun. A flash of white flame and his hand becomes a blackened stub—fingers seared by the criminal's ray. Again the ray blazes, even as he leaps—to crumple to the cabin-floor with a horrible blackened burn in his thigh.

In the aft passage, Bill is hurrying forward, gun in hand. Below, Fred is creeping toward the cabin hatch, ready to drop at the wink of an eye. The grim, bearded figure in the cabin runs the controls to neutral, drives the unconscious captain halfway to the cubby-hatch with a brutal kick, then crouches, guns ready, covering the door and hatch. A slender rod with polished tungsten electrode protrudes from the crack of the door—Bill's ray-gun. A flare of fire and it droops, fused, and the hidden guard is cursing with a seared finger. A second flash, as Fred drops again to the safety of the cubby, the heat of the ray turning the metal hatch cherry-red.

Gulliver speaks, sneering arrogance and brutal triumph in his voice.

"Listen, you, behind that door! Get out of there before I melt the hinges an' burn you out!"

Bill stumbles out of his hiding, gripping the wrist of his wounded hand in white-knuckled agony.

"Right. Now listen, an' you below. Me, I ain't goin' to be dropped, not here anyway. I can run this ship by myself, so I don't need help nor hindrance from you big-noses, see? I'm droppin' you, now. You have that knife you were goin' to give me, an' the feller in the cubby has his guns—all right, you can keep 'em. I never give a guy a dirty deal unless he gives me one—not even a big-nose.

"You there, with the burned hand. Hustle your cap'n down that hatch. He ain't dead, just washed out by a little burn. An' take that stiff in the bunk. I ain't afraid of dead men, but they ain't nice company for a lone man like me. Come on' hustle! No stallin' or I'll drop you right out in space! There ain't too much time, an' I've got to find me a moon to hide on for a while."

From the floor comes the voice of the crippled captain. "*You* call yourself a cap'n! You damned fool, look out of that port behind you!"

"Yah! That's an old trick—an' you with a ray-gun left! Think I'm green anywhere?"

"Stow it! I had the controls set to curve in to the moon, didn't I? An' you threw 'em neutral—a real cap'n like you! Go ahead, look out, if you ain't yellow! Where's the moon, hey? Yeah, *an' where's Jupiter?* You poor fool, you've killed us all, an' you're in the same boat with the rest of us!"

The Plunge to Jupiter!

FEAR seizing him, Gulliver wheels, stares for an instant, turns back snarling. There is no innermost moon to be seen—in its stead huge Jupiter blots out the stars, as the little ship rushes headlong into its sea of frozen clouds, whence no man has returned and told the tale!

"So that's the way it is, huh? We all die together, do we? Well, mister big-nose, if any one of us four lives I'm elected, see? Get down that hatch before I ray you! Quick! I ain't gabbin'! An' if your damn' ship is any good at all, I'm out of here, see, if you have to stay. I've seen a thing or two in my day that most men have never even heard of! I've been here before, see, an' I ain't dead yet nor ain't goin' to be!"

Alone in the cabin of the falling ship, fingering nervously the unfamiliar controls, the ex-captain stares from the broad port, trying their effect. He hasn't run this kind of ship, doesn't know the ropes as he used to. Still, it would be easy—just try' em all gently an' sort 'em out. There—see? These are the jets here. That's the cubby-port; that's the main port; that must be the lever to load the firing chambers. Cinch,

if you know how! All set now—it's up to luck, to Gulliver's luck.

The great bulk of Jupiter has blotted out all the starry heavens with its huge ball of swirling clouds, banded by the equatorial gales that circle the planet. Now, easy with the laterals, easy, and they're in the atmosphere, clouds of needle-crystals swirling all about them, mighty winds ripping and tearing at every projection of the stream-lined hull, the ship flattening out in a long, level glide that will bring them spiraling out of the blind greyness of the clouds, down to where he can see to navigate. He has been here before, he knows his way about.

Now the clouds drift up and the mightiest of the planets lies far below the scudding ship—desolation rampant. Crags, deserts, great ranges and wind-carved, time-worn plateaus—all of the blue-green ice of the outer planets, ice that has lain hidden for ages under the cloud-drift that men see. But it is not barren ice that he seeks, but another thing by far, and as the rocket sinks slowly he sees his goal rising above the curve of the planet—the great Red Spot of Jupiter.

The ice has nearly all vanished, and harsh black rock juts in its stead in a chaotic wilderness where no ship can land unwrecked. He is uneasy, the controls are unfamiliar, do not respond as he would like. He is close to the crags now, too close, closer than he has ever been. He can see great rivers, torrents of ice and water, flowing in the heat of the Spot. The great mass of the planet, too, is making itself felt, and he reacts to stimuli sluggishly. But the Red Spot is close now, and the great updraft of hot air that will hurl them above the clouds, to safety.

Like a crimson mountain it looms ahead, and already great winds are sweeping them into the maelstrom. But it is hot, and his feet and hands feel heavy—it is hard to think and act. No, he has never been so low—he can see the region about the base of the Spot, cloaked in rising vapor that is torn to shreds by the gales. It is like a deep bowl all around the great oval of the Spot, deep and green with rank vegetation. There are swamps, where the waters of the great rivers fester and rise to mist in the frozen clouds. There are great forests, and long, low plains—all gleaming strangely in the lurid glare of the Spot. And the ship is low, too low, and it is hot and hard to think.

Suddenly a towering range of narrow peaks shows below, ringing the lowland, and in the fearful up-draft of their slope the little rocket-ship is gripped and hurled end over end aloft! Madly Gulliver jerks at the firing-lever, the jets cough—and die, burnt out! As he grabs at the reloader, the fury of the upper winds cuts into the buoying up-draft, and like a bit of down the ship is tossed by the tempest! Hurled clear across the cabin, he creeps toward the lever, inch by inch, year by year. Beyond the port, the red hell of the Spot glares evilly at his staring eyes and working lips. Inch by inch—but the mountains are gone, and the falling air drops them mile on mile toward the ghastly green swamplands. A lurch throws him headlong against the controls—too late!

He gropes madly, blindly for the lever that is safety—yanks wildly at whatever his hands meet with! Clang! Wings of metal spring from the ship's sides buoying it to the planet's surface. There, that one—no—the other. The entry-port crashes open with a rush of pressing air, and as he stares dazedly at the rushing ground beneath, he sees dully four figures hurtling end over end toward the swamp below. For a brief instant the ship levels, then plunges toward the forest, and in that instant he leaps. The narrow plain that rings the swamp is rushing up to meet him, faster, faster. It is hard to breathe. Then something strikes his back with awful force and the world goes black!

* * *

SLOWLY he woke, gasping for breath. The air was thick, stifling and unbearably hot and humid, trying to burst into his body and strangle him. His ears throbbed with a dull thunderous roar, from the greater air-pressure, and an awful weight was bearing him down. Slowly, painfully he rolled over on his face, pressed down into the thick, springy moss by the enormous pull of Jupiter's gravitation. Inch by inch

he gathered his limbs beneath him, struggling against the weight of his space-suit—five hundred pounds of matter crushing him into the ground. His head rose above the moss; he looked about him.

Above the forest the great Red Spot loomed through the rising mists—a huge mountain of molten rock, oval, raised from the planet's face by the whirling centrifuge and tidal drag that will some day rip it free and give it birth—another moon for the sovereign of the planets. Then the forest—a matted tangle of unearthly olive-green tree-forms, glossy and uncannily still—at its edge the rocket, by Fate's whim unharmed in its fall.

With superhuman strength he surged to his feet, then dropped with a grunt of released breath and wormed about to face the swamp-edge, whence a flaming ray has hissed past him in a torrent of whirling, heated air! Four forms grovel in the mud of the swamp—one motionless. A ray-gun blazes again, searing the moss beside him, sending up a stifling stench, the moss seeming to writhe away in alarm as air-currents whip it.

His own ray flames—one form crumples with a yell of agony, an arm neatly gone, and as neatly cauterized by the heat of the ray. He cannot see, but it sounded like Fred, the young feller who gave him the books. Funny about those books. Bet that other old Gulliver never had a fight like this!

Hours pass, hours of darting rays and shriveling moss and flesh. Gulliver has been hit twice—one arm is dead from the elbow down—but in the swamp one man alone returns his fire—Bill. For a long time he has been quiet. Maybe he has run out of charges for his gun. Probably it's just a trick to draw his fire and make a target. What the hell? The damned fool is gettin' up—tryin' to move toward him—yellin' at him! Tryin' to pull a charge, hey? Not on this baby! Spat! Spat! Got him—got him, by God! They're done for—all four of 'em, the damned big-noses! Tryin' to get him!

What was that he was yellin' when he was burned down? Somethin' about back—back of you. That old kids' trick again! Huh! Tryin' *that* on *him*, on Lem Gulliver! Damned fool!

What the hell? Seems like he's sinkin' deeper in the moss, or else it's growin' higher. There's a kind of wormy, squirmin' movement goin' on underneath him, like he was lyin' on somethin' that was tryin' to wriggle out! Funny feelin', nasty an' creepy-like. He rolls over on his back, laboriously. Funny, there's a great big flower bendin' over him, an' there's another—three more, all around him. He can see more beyond. They weren't there before—he'd stake his life on that! What kind of a place was this, anyway? Too damned funny for him, it was! Of the places he'd seen, this beat all of 'em by a long sight!

Where he'd been lying the moss seemed te be writhing under his hand, squirming out from under it and creeping over it on all sides. Where he was, he could feel it wriggle under his back, and see it sort of bending over him where he pressed against it. It felt a lot like little fine feelers on his hand, little fine roots of the moss running all over the back of his hand. What the hell? That hurt! Damned if those roots weren't tryin' to cram into his pores an' under his fingernails—no way at all for moss to act! Take those flowers, too, great big purple cups, all splattered with gold, with little red tubes like feelers on the inside. Let's see, there ought to be four of 'em.

Four—there are ten, twelve—hey, what *is* this? The damned things are growin' up all around him, creepin' right up on him while he lies there! *It ain't right!*

Somethin' is drippin' on his face—wet an' warm an' sweet-smellin', like perfume. Makes him want to sleep—funny feelin'. Ow! That was in his eye—it burned like fire! What the hell? Some on his hand—let's look at it. Hey, it's purple stuff an' it won't rub off, it's set right into his skin! It's juice from those damned flowers drippin' on him—puttin' him to sleep! Damn it, *it ain't right!*

Good God, the damned thing's tryin' to strangle him, smother him—little thin red tentacles winding about his throat, a great

fleshy hood of livid purple closing down over his face, flooding his panting lungs with the sickly sweet odor of death. Another is on his wrist, striving with the moss-threads to worm down into his veins and drain him of life. God, they're attackin' him!

With a mad wrench he tears free, stares wildly at the uprooted plants that still writhe greedily with evil life, at the wiry moss scuttling over the surface of the ground where he has lain. Damned plants, tryin' to get him too! Well, let 'em try! Gulliver's luck holds!

But now comes a hushed sound, a muffled whisper, a scraping rustle, from behind him. Behind—look behind! That's what the guard yelled! With a surge of giant muscles he tears his laden body from the clinging moss, struggles to his knees, and stares in mounting horror. Moss—flowers—and *now the forest is marching to the attack!*

Once he screams—the only scream of fear in his life of danger. Then surging muscles bear him up and he hurls his body forward—toward the trees that are sweeping down upon him with a rustle of eager branches and a scrape of writhing roots, hungry for the kill!

To an observer, he must have seemed a giant toad—a misshapen monster, toppling forward across the hungry moss in great struggling hops, two—three feet in every lurch. And still the forest-front creeps on undaunted to meet the creature that leaps and crawls to do it combat—a man of Earth, unafraid!

Thick leaves whisper greedily among themselves. Drooping, tentacular twigs stir eagerly and uneasily, looping and twining in hunger. Great smooth-barked roots worm forward, hump upward, inch their way through the thick moss, that is itself moving in shadowy ripples that converge on the lone man who creeps and lurches ever onward to the fray.

He has halted, a limbless human stump, squatting half buried in the moss—waiting. His laboring brain whirls, his ears roar with the pressure of the atmosphere, his breath comes slowly, heavily, for the air is thick and heavy to his aching lungs.

The many hungry blossoms hurry forward on hunching roots, their purple sucking-cups nodding, racing the great trees for the prey. The moss ripples faster, the murmur of fleshy leaves has become a minor roar as of distant winds. And still he sits and waits, as the deadly circle forms and closes in on every side.

His ray-guns blaze, again, many times; fanning in a broad angle! Through the surging jungle a great swath of death has been carved, straight to the rocket-ship. In great five-foot dives he bounds forward, driving his failing body to new struggles, new feats of strength and daring. Over charred, still-twisting tree-forms, over seared and matted moss, over cinders that have been flower-cups with little living red tentacles, he beats his way—to the ship and safety. Behind, the lane narrows, closes in after him, but the lever is thrown, the jets fueled, and with a thunder that sets the leaves and tendrils into a frenzy of agony, the ship sweeps forward and up!

Below, at the swamp's edge, four long, narrow mounds show faintly in the eagerly stirring green slime. Now the fierce uppouring chimney of the great Red Spot has caught him, and like a bit of fine down he is hurled aloft in the grip of the winds—up through torn cloud-levels, up, and out into starry emptiness. And as the belted bulk of mighty Jupiter shrinks astern and a Universe opens ahead, the lone eye of the great Red Spot winks applause to Lemuel Gulliver, Black Lem of Earth, who has met his world of giants and has won!

THE END

ALL READERS
should be thrilled by the $100.00 Prize "Interplanetary Plot" Contest in the Spring 1931 Wonder Stories Quarterly—now on all newsstands

Rebellion - 5000 A.D.!

By Garth Bentley

(*Illustration by Marchioni*)

Earthquakes of wide and terrible destructiveness wiped out whole cities; tidal waves of mammoth proportions swept in . . . .

PHYSICS C7, at the time I registered for Professor Clewe's course, meant only three hours of necessary credit toward my Bachelor of Science degree. When I answered the roll call on the first meeting day of the class I had little intimation of the part that the instructor was to play in remapping my future in a way that even the wildest of my boyhood dreams never pictured.

The course dealt with advanced electricity, and Professor Clewe was a world-famed authority on the subject. I was majoring in Physics with the idea of teaching the subject eventually. A vague and almost forgotten uncle had left me sufficient funds to remove all necessity of earning a living, and I had chosen pedagogy as a pleasant avocation.

The cloistered life of the university, with its comparative remoteness from the confusion of the outside world, appealed to me greatly. I had but little desire to plunge into the bustle of modern commerce; and the dignified and more leisurely field of research beckoned invitingly.

Although barely twenty-five, my life had not been an easy one until the passing of my uncle brought affluence and made a college education possible. Left an orphan at an early age, I had peddled papers, done odd jobs, worked in lumber camps, on dredge boats and in factories. I had even played two seasons of professional baseball in one of the tiny leagues that are mentioned only in the back pages of Spaulding's Guide.

As a result, I did not fit in very well with the conventional unconventionalities of college life. I had never been inclined to make close friends among my associates, my contacts with the other students were confined mainly to nodding acquaintanceships in the classrooms and on the campus. My professional record barred me from the athletic teams and —as I had never cared for femininc society, being somewhat shy of girls—I paid little attention to the social side of college life. I had a small apartment where I lived with my books and, except for occasional tennis games with anyone I could find, I spent most of my time reading and studying.

Professor Clewe proved to be an interesting lecturer and we soon became warm personal friends. In spite of the difference in our ages, I found him a delightful companion. Because of my interest in his subject, he was accustomed to discuss questions of Physics with me as if I were an authority of his own standing instead of merely a student.

After several months of comparative intimacy—for Professor Clewe had but few friends—he confided that he was working

AS we look back in history to the actions, the beliefs and the mentality of people of, let us say the Middle Ages, it is hard to conceive that a world of such ignorance, superstition, hate and persecution could have existed.

Similarly, the people of other ages looking back to the 20th century will find it incomprehensible to get our mental attitude, and understand why we live as we do.

A man who travels back from the future into the present, as Mr. Clark Ashton Smith showed so clearly in "An Adventure into Futurity," would find himself almost in an alien world. This would be just as true, perhaps more so, to a man of the present who happened to find himself in a future age. No time travelling story then, can be truthful, or fulfil its purpose that does not show clearly the difference in habit, thoughts and feeling of people of widely separated centuries.

The present story is one of the best stories of futurity that we have had the pleasure to print. It fulfils almost perfectly all that one could wish for, in a picture of a far-distant age.

on an invention of his own that might revolutionize communication. His explanation of his invention was long and exceedingly complicated, and much of it passed over my head, I am afraid. Simplified to everyday terms, he was attempting to discover some means of sending radio messages in a straight line like a beam of light rather than on the customary Hertzian waves which radiated in all directions from the sending station like ripples on the surface of a pond.

Many others were experimenting along this line, I knew, with varying success. Professor Clewe, however, was seeking an entirely new wave or ray to carry the electrical impulses which carry radio messages. After years of indifferent results, he had discovered an unknown wave of a totally different sort which he believed would ultimately prove the solution to the problem.

GARTH BENTLEY

The discovery had come by accident, as so many scientific discoveries do, and as yet he had had little time to do more than experiment in the most rudimentary way. He had been using small models and had no way of gauging the exact power or accuracy of his machine. At his request one night, I accompanied him to his home—a bachelor cottage of five rooms. At least three of these had been turned into laboratories, and it was in one that he had been conducting his experiments.

Professor Clewe showed me the small models of his sending set and I listened eagerly as he explained them to me. But it was the completed machine, occupying one entire end of the largest room, that fascinated me. At first glance it seemed a confused mass of electrical apparatus. Condensers, Coolidge tubes, generators, Tesla-coils and other pieces of apparatus unknown to me were linked together with an apparently hopeless tangle of wiring.

I turned to the professor.

"It looks like a high frequency experiment of some kind," I remarked trying to follow the general hook-up with my inquisitive eye.

"Not exactly," he laughed. "You might call it a super-high frequency machine. It's a transmitter-generator of the same type as the smaller models but much more powerful. Some of the extra equipment is necessary for stepping up the voltage to the required power. I would hate to mention the actual voltage which I believe the machine will develop. I completed it only today and we will try it out tonight."

WE examined the machine in silence for some moments. Finally the professor turned to me.

"I have checked this apparatus a hundred times since this morning and I am certain that my calculations are correct. The small models worked perfectly and I believe that this one will also operate successfully. We will make the first test a real one.

"Five miles from here," he continued, "I have fitted up a receiving set in a garage on one of the big estates. I am going there now and I will leave you here to send the first message to me."

I protested volubly at this arrangement as I thought the honor of sending the first words over the new wave should be his.

"No," he said in reply. "This is only a private trial and the sending is the easiest part. I must be at the receiving end in order to study my apparatus there and to tune the receiver to the proper pitch. It may require a bit of delicate adjustment—work that you could not do. The transmitter is completely in readiness. All that you have to do is turn the switch on the panel and tap out a message with the key. You

know the International Morse Code?"

"No, but I'm familiar with the American system."

"Just as good," he replied.

He returned to the sending machine, and for some moments was busily engaged in testing connections and making sure that everything was in perfect order. Then, pulling on his coat and hat, he spoke.

"I'm going now. It's eight o'clock on the dot by my watch. Is yours the same?"

We synchronized our watches, and he continued.

"We had better allow at least a half hour. That will give me plenty of time to get there in spite of possible traffic delays. Then I will need a few minutes to get the receiving set adjusted. Suppose you throw the switch at exactly 8:45."

I nodded agreement and he left hurriedly. It was the last time I ever saw him.

Alone in the laboratory, I again turned my attention to the professor's transmitter. I was frankly puzzled with its intricacy. I was beginning to realize how little I knew of the strange force men call electricity. But even to my inexperienced eye, the machine suggested power such as few men have gathered. This was the type of transmitter one would expect to find in use in interplanetary communication, hurling its messages across the vast reaches of cosmic space by sheer power. Its vastness and unknown potentialities sent a queer shivery thrill through me as I stood regarding it silently.

I was conscious of a deepening interest and a growing excitement in the experiment. I took out my watch and shook it to make sure that it was going. The time was passing all too slowly for me; I could scarcely contain my eagerness while the second hand crawled around its tiny circle.

After a seemingly interminable time, during which I explored the professor's library, tuned in the radio in the living room and wandered idly about the laboratory, my watch pointed to the awaited minute. As if to confirm my wrist watch, the radio program ceased and the gong sounded for the regular quarter-hour station announcement.

I cross the laboratory toward the panel which contained the control switch. The key, with which I was to send my message was fastened to the horizontal base of the panel, and I hesitated for a moment as I seated myself in the low chair, wondering what message I would send. Some theatrical impulse gripped me. If the invention proved successful, just as epochal a moment as the first flight of the Wright brothers. I made my decision: "A new day dawns" would be the message I would tap out in the Morse code.

With my heart beating wildly, I threw the great switch. The tubes began to glow. A great flashing spark leaped madly across the uprights of the huge Tesla coil, and continued to flow across the gap in a crackling flash of fire. The voltage, I thought absently, must be tremendous. The smell of ozone was strong in the air of the little room, and I was conscious of a queer tingling sensation all over my body. I turned to the key and pressed it down in the first stroke of the Morse A.

A blinding flash filled the room. For one instant I was conscious of a rainbow aura around the machine. The panel, the key and the meager furniture of the room, all appeared as if seen through a prism, distorted, colorful. Then I swam in a great blackness and lost consciousness.

CHAPTER II

A Strange Awakening

I STRUGGLED back to consciousness with the sound of many voices chanting a paean of triumph in my ears. My head throbbed painfully and my limbs felt as though they had been broken on the rack. Every muscle ached as I attempted to raise myself to a sitting position, and starry pinwheels danced before my eyes. I desisted in my efforts and lay back with a moan, closing my eyes again.

I tried to recall what had happened and, after a bit, I remembered the laboratory, the great machine and the professor's experiment. I moved my hand and realized that I was lying on soft grass with a slight breeze blowing on my face. Someone

raised my head gently and I felt cold water trickle down my throat. Presently cool, soft hands bathed my forehead and rougher ones chafed my wrists gently.

My strength returned rapidly, the ache in my body subsided and I opened my eyes once more. The pinwheels had ceased dancing, and as I blinked in the soft light, I looked into a pair of golden brown eyes in whose depth I could read compassion, welcome and a hint of reverential awe. As my eyes grew accustomed to the light, I discovered the eyes to be set in a face whose loveliness left me breathless, framed as it was, in a cloud of wavy, dark brown hair. Two soft yet sinewy white arms supported my head.

Another face came into my line of vision, the face of an old man whose long white beard and wrinkled features made him seem incredibly ancient.

He spoke to the girl who held my head, and his words were close-clipped and swiftly spoken, giving a staccato tone to his speech. She answered in a musical voice, using the same quick articulation.

"He awakes," she said.

The old man turned to those that surrounded us at a slight distance and addressed them in a loud voice. My mind was still too cloudy to catch the swift words of his message but it was greeted by a roar of acclaim. With the aid of the girl and the old man, I struggled to my feet. After a moment of unsteadiness I was able to take stock of my surroundings.

My two companions and myself were encircled by a ring of what must have numbered several hundred people. We stood in what was evidently a park, and huge street lamps of an unfamiliar pattern lighted the scene with a soft, glowing radiance and made the space where we stood as light as day.

I turned to my companions and surveyed them with interest. My first impression of the girl was confirmed. She was beautiful of face, and her figure was as well-proportioned as that of a dryad. She was tall and slender, and her hair was clasped round her forehead with a wide band of silver bearing strange inscriptions. She was dressed in a loose-fitting tunic of white, girdled about the waist with a silver cord. The lower edge of the garment fell slightly below her knees, and her feet were encased in silver slippers.

The old man seemed even more ancient than I had supposed from my first glimpse of him. He, too, was clothed in a white tunic that reached his ankles, and which—with his white beard hanging low on his breast and his long white hair falling over his shoulders—made him seem like a patriarch of Biblical days. The tunic was belted with a silver sash, from the wide end of which dangled a silver ornament in the design of a four-spoked wheel. Like the girl's, his hair was held away from his forehead by a silver band that carried queer symbols.

The crowd, which had become silent as I arose, stood watching expectantly. I could feel the intensity of their concentration and subconsciously I knew that the undercurrent of excitement which gripped them was, in some subtle way, connected with myself.

I noticed that these spectators seemed about evenly divided; half were men and the rest women. The latter wore tunics similar to the girl's but shorter, coming several inches above the knee and bound with sashes of various striped materials. The men wore blouses open at the neck and loose, full shorts. Harnesses similar to double Sam Brown belts, crossed in front and behind, passed over the shoulders and were attached to broad leather belts. The short sleeves of their blouses bore various designs similar to the insignia worn by army divisions.

I TURNED to the old man.

"What are they waiting for?" I asked.

"They await your message," he replied.

"What message? I do not understand."

"You will know in time," he answered, gently. "In the meantime you must speak to them. They expect it."

"But what shall I say?" I was bewildered and none too clear in the head, even yet.

"Say anything! Something . . . Only

a few words will do," the girl broke in in an entreating voice.

I cleared my throat and took a few steps forward. The crowd was silent, waiting.

"My friends. . . ." I hesitated, and the words of my message to Professor Clewe flashed into my hazy mind. I continued, "A new day dawns. . . ."

The silence was broken by a tempest of sound. The people in the front rows passing my words back to those in the rear, the sound grew as all repeated the trite phrasing of my message. Then some one began the chant that I had heard on awakening. Another caught it up, another and another. It spread like a ripple of wind over a wheat field until all were shouting its cadences in unison. It had a triumphant ring, a conquering ring, like the song of an army to whom new hope has been given. I was able now to catch the words that snapped forth in sharp explosions of sound:

"O men arise!
Strike off your chains!
The night is gone,
New hope appears!
Lift up your eyes!
A new king reigns!
A new day dawns
On bitter years. . . ."

I caught my breath. The very fierceness of the song gripped me. The way they sang it! A song of new faith . . . . of salvation. . . .

The old man raised his arm and the song was stilled. He spoke:

"The day of deliverance is at hand, my children," he said. "But the time for action is not yet here. Pass the word among you that he whom we have expected for so long has come. But guard your news carefully lest it be known of those who rule. Go now to your homes and be of stout heart."

Slowly the crowd dispersed and we were left alone. The old man turned to me.

"Come, let us go. . . ."

"But why? Where? I do not understand."

"You are still dazed at the manner of your coming."

"But where am I? What country is this?"

"This is America. The lights on the horizon there are those of the city of Chicago."

I looked in the direction he had indicated and there, far to the northwest, I could see starry lights twinkling and in the sky the reflected glow of a great city. The ground where we stood was gently rolling but sloping upward toward higher hills close at hand. The breezes freshened and brought with it the breath of Lake Michigan.

"We are in the Dunes of Indiana?" I asked.

"They were once known as that," he replied.

"Once known. . . ." I could not grasp his meaning. The accident and the queer happenings of the past few minutes had convinced me that I was in some sort of delirium. A wild idea struck me. "Isn't this the year 1930?"

The girl looked at me wonderingly, and the old man shook his head.

"This is the year 5000," he said.

The Coming of the Messiah!

MY mind was too dazed to absorb this information quickly, and I followed my two companions unprotestingly as they moved toward a grove of trees near at hand. It did not occur to me to doubt the old man's assertion. There was too much evidence which tended to prove him right. The clipped, staccato speech and the queer costumes of the people, the very contours of the Dunes where we stood—the trees in orderly rows and the cultivated, park-like appearance of what I remembered as unspoiled country where nature ran riot—all urged the passage of considerable time. But, how?

Naturally, in the course of my college career, I had heard much of the fourth dimension, of moving in time and of other topics off the beaten track of science. I could only explain my present predicament by granting that the professor's machine had hurled me—somehow—some way—through three thousand odd years of time. It was unbelievable, incredible! Yet the fact remained that here was I—a normal young man of the twentieth century—torn

loose from his own environment and dropped in the center of a new age, in a world unknown to me in actuality and in theory.

Of course I had read many books of the semi-scientific kind, forecasting the world in the years to come and pointing out the changes that would take place. I tried to recall some of the glittering pictures the prophets of the future had painted. All sorts of descriptions had been given of the superman of two thousand years or so hence, pointing out how evolution, habits and environment would change his appearance and physical structure. He would be a large craniumed creature because of much thinking and brain work. He would have weak legs and spindly arms from too much dependence on machinery. He would wear glasses perpetually as a result of too much reading and study under artificial light. He would have no teeth or hair of his own and few, if any, toes.

I looked at my companions critically and marvelled how little humanity had changed physically in the thirty centuries and more which had passed. The man was old, very old, yet he differed but little in appearance from bearded grandfathers I had known. True, his movements were almost as swift and sure as my own and his wrinkled face carried the bloom of perfect health, but certainly these were changes for the better. I could think of many women I had known and admired who were little different from the girl of the brown eyes, and none of them equalled her in beauty or grace of movement. No, whatever else had happened, the human race had not deteriorated physically. If anything, judging from the uniformly healthy appearance of the people I had seen, the race had improved considerably.

My companions led the way to an open space among the trees where their airplane rested. I had no trouble in recognizing it as such. Its exterior resembled in many ways the ships of my own era. The streamlined cabin curved upward from the bow and receded toward the tail where it ended in a point. The propeller seemed very small for so large a plane, being no larger than those of the one-man planes to which I was accustomed. The wings were similarly two narrow fins, extending along the sides of the cabin for half its length. These slanted backward and with the rudder and tail-pieces, which were shaped like the end of a conventional arrow, gave the ship the appearance of a great dart. There was no landing gear, I noted in amazement, the ship seeming to rest on its own flat under-surface. We entered the cabin and I saw that the interior was very comfortably arranged to carry six passengers. Deeply cushioned, roomy seats, upholstered in a very fine grained synthetic leather, awaited us. I turned to my companions.

"I do not know your names, my friends," I said, extending my hand. "Mine is Kenneth Martin. I am known informally as Ken."

"I am Jon Ley," the old man replied. "This," indicating the girl, "is Leda Ley, the daughter of my grandson who is dead."

I acknowledged the introductions, not overly surprised that he was the great-grandfather of a girl who seemed but little younger than myself. Jon Ley's outward appearance told of many more than the customary three-score-and-ten years. And his eyes were the eyes of one who had lived for centuries.

"Why are we here?" I asked as we took our seats. "And who were the people who chanted, whom you sent away? What was the meaning of their song?"

JON LEY shook his head. "We have not the time to explain everything now," he said. "Already there is great danger. If we linger here it will mean destruction to all of us. When we arrive at safer quarters I will explain many things that you do not now understand.

"At the moment," he continued, "I will tell you that you were found outside the city near the ruins of ancient buildings. A young doctor, who is one of us, was giving first aid to a man injured in an accident when he saw a sudden electrical disturbance nearby—a great flash of light—and when he investigated you were lying there. With the aid of others, he placed you in his flyer and brought you here.

"He saw in you the answer to a prophecy

made one thousand years ago. In a very short time many people had assembled to do you honor. You are to those, who believe in the prophecy, a Messiah, a deliverer, come to remove the yoke of the tyrant from necks that long have borne unwilling burdens. Small wonder that many of our people will see you as a god, one who comes to us out of the past to lead us toward a new future."

"But I am only a man," I protested, "a man such as they are—like you, yourself—I have been plucked from my own era by some freak of fate and dropped into one many centuries removed. I am no god, nor can I pose as one."

"No, you are no god. The gods are dead," the old man mused. "They died many years ago—beyond the memory of any now alive. They who rule us have a god of sorts to whom they render a tolerant, patronizing sort of reverence as it pleases them. But the people have no gods. Long ago they gave up all hope of divine interference in their destinies. The religion that you knew died soon after the close of your own century. Too much was known even then of nature's laws, and man learned to control them in ways that gods would never have permitted. And the clergy, trading their spiritual leadership for temporal power, lost the respect of the people and became corrupt and futile.

"No, you are not a god," he concluded. "Yet many will so regard you and will do you reverence. A god come not to save men's souls but to save men's bodies and men's intellect."

CHAPTER III

The City

LEDA had turned to the controls of the plane and I was watching interestedly. I wondered how she would get the necessary run for the take-off, since the plane was without landing gear. I was not long in doubt. The girl pressed a button, threw a switch, pulled a lever. The motor hummed busily but quietly, and I felt the ship groan and rise quickly headed for the city. We had risen vertically from the ground.

I uttered an exclamation of pleasure. Leda locked the controls and swung her chair around to face us.

"You are surprised?" she asked.

"Yes, I am," I admitted. "In my own day it was necessary to run the plane along the ground for some distance in order to get the necessary momentum for taking off. And our motors were very noisy compared to yours."

"We have progressed far since then," she replied. "I have read of your early struggles to fly. Of the Wright brothers and Curtiss and the rest. The ships of your day must have been very dangerous and cumbersome compared to ours. Many years ago our scientists discovered that gravity is only an electrical phenomenon and soon found a way to counteract it. Without the earth's pull against the ship—for the nullifying current passing through the metal hull makes the plane slightly lighter than the air it displaces—there is no inertia to overcome in taking off. And there is little danger of accident while the current is on. Here is our power source."

While answering she moved aside a panel in the wall of the cabin and I saw many batteries connected in relays. I was amazed at their smallness. They were all about the size of an ordinary book and of the same general shape. I was becoming accustomed to the amazing efficiency of this new world, however, and I realized at once that these small batteries were many times as efficient as the cumbersome and wasteful affairs to which I was accustomed.

"They contain a great deal of power?" I asked.

"Yes," she replied. "More than we are ever likely to use. The gravity destroyer uses remarkably little current and our motors use very little more. Every bit is translated into action."

The old man roused himself from his reverie and spoke, half to himself.

"There is nothing wasted today. We are efficient above all else." There was a bitterness in his tone that spoke volumes and strengthened my half-formed guess that the

new world was not so much of a Utopia after all.

As I pondered, we were winging our way toward the city. My mind was a seething mass of unspoken questions, all clamoring for utterance. The dismay, the sense of utter helplessness that had gripped me when I first realized my translation to this new era, had given way to an intense curiosity about the new life that faced me.

I was conscious of no regrets over the sudden termination of my former existence. I realized that there were no ties binding me to the past. I looked at my beautiful companion and felt a warm glow suffuse me. For all its strangeness, my new destiny offered many pleasant possibilities. I permitted myself to lapse into roseate dreams.

"Look!" Leda was pointing downward through the glass panel in the floor.

Then I saw the city, and I caught my breath as I tried to comprehend its vastness. Lit with a glow that seemed to illuminate every corner, turning the night into day, the city reared its head seemingly to the very stars. We were flying at an altitude of several thousand feet yet it appeared to me that we must inevitably strike the tops of some of the enormous buildings.

The structures were breath-taking in their magnitude. I had seen pictures of the pyramids and these huge piles of masonry brought them vividly to my mind. Yet I realized that the greatest of the Egyptian monuments would seem as an anthill in comparison.

AS we neared the city, I was able to see the architecture more clearly. Each building seemed as if built in the manner of a child's house of blocks, each block being placed upon the other and each one smaller than the one it rested upon. Starting with a base several thousand feet square, the building rose straight in the air to the height of thirty or more stories. Then a set-back and the building rose another thirty or so stories. Another set-back and more floors; and thus, after other series of set-backs and stories, the building ended in a great flat roof where many air vessels were constantly landing or taking off while others were parked in regular rows around the roof's edge.

Although the buildings varied in height, the lowest levels or setbacks of all were even, and these levels were connected by wide highways, joining each building with its neighbors. As we drew closer I saw that there were not so very many of the great structures, an even hundred of them as I learned later, but they were arranged in regular rows three hundred or more feet apart.

Besides the highway levels, they were connected by threads of metal which my companions identified as the tracks of the monorail cars that carried the people about the city. I could see the traffic passing between the buildings on the many levels. There were little blurs that I knew were pedestrians and thousands of vehicles, some small, others large, which I knew were motor cars, although they had changed until almost unrecognizable. These too were run entirely by tiny but powerful electric motors.

I looked in vain for the trees and grass, the parks and boulevards that had been Chicago's proudest boast in the early days of the twentieth century. As we hovered over the city, it seemed a wilderness of concrete—or its modern equivalent. Yet the vast buildings, their orderly arrangement and the stern vertical lines of their windowless sides, held something of beauty that was unknown to the sprawling, growing city I remembered. Gone were the slums, the sordid ugly patches, the smoky grime of factories and railroads. The city, for all the mammoth proportions of its buildings, occupied but a fraction of its former size.

As I watched the unending flow of traffic, fascinated by its orderly pattern as well as the swiftness of its pace, a deep bell note sounded through the roar of the city. It was a clear, though low-pitched sound, and it reverberated through the canyons of the city, reaching us, high as we were above it.

"What was that?" I asked.

"The bell," the girl replied. "When it sounds, all activity ceases in the city and

the sleep period begins. In half an hour all lights will be turned off and there will be absolute darkness for eight hours."

I watched the streets rapidly clearing of traffic. Airplanes, like homing pigeons were fluttering to rest on the tops of the buildings. In a very few minutes the city grew quieter and fewer sounds floated up to us. The hum of busy humanity, that had sounded to us like the buzzing of innumerable bees died down to a gentle murmur.

"In a few moments all will be silent," Jon Ley remarked.

But even as he spoke the noise increased and out of the buildings poured the people. A hum of conversation reached us, high as we were. The tide of human beings increased until the streets were black with massed citizenry. The girl turned to Ley.

"What has happened? They have never defied the law thus. All should be in their sleeping rooms for the lights will be turned off very soon. Do you suppose . . . .?"

Even as she spoke, we heard the triumphant notes of the chant sounded by the multitude. It had sounded loud and joyous as we had heard it in the Dunes but now, hurled to the heavens by a host of voices, it defied description. A tremendous, exultant volume of sound that rose like the crest of a wave, sweeping everything before it.

I felt a queer catch in my throat.

"Is that for me?" I asked.

The old man caught my arm in a bruising grip.

"For you. But too soon, too soon!" he said and his voice was strained to a hoarse whisper. "They are undoing all of our work. All our plans are ruined."

LEDA gave a sharp cry of alarm and turned to the controls, sending the plane soaring upward into the blackness of the night. Out of the north, huge ships were winging their way swiftly toward the city. Each bore a great searchlight on the bow which sent dazzling beams of light far ahead.

"The guards," she gasped. "The guards have come."

The big planes hovered over the chanting multitudes. The song was hushed as the searchlights, their blinding glare cutting through the soft glow of the city's illumination, played over the crowds. Men's voices, coarse and rough, spoke through great amplifiers, warning the crowds back to their homes. The words were harsh and grating, and the messages were liberally sprinkled with vile and obscene epithets. I squirmed at some of the coarser thrusts and glanced at Leda. Her face set in hard lines and anger shone in the glances she flashed at the planes of the guards.

The crowd hesitated, silently, for a moment. Then the chant broke out again and spread until it hurled defiance to authority in the fierceness of the singing.

"They are defying the guards," Leda breathed almost inaudibly, and there was a look of pride in her eye.

The dazzling white lights died out and orange beams shot from other lamps on the guard planes.

"The ray," the old man muttered. "They are using the ray."

Even as he spoke the beams of orange light played over the crowds on the higher street levels. Wherever the light struck, people cringed and fell. The rays cut great swaths in the packed highways and the song wavered and died out.

"They are beaten," the old man cried. "The revolt is broken and the rulers are warned. They know by now that the Master is with us and will be seeking him. We must go away at once before they discover us. To the camp."

The people were crowding into their homes. The crowds on the lower levels, seeing the rays used on the higher streets, had stampeded in wild disorder. The upper terraces were deserted except for the sprawling figures of those whom the orange rays had struck. The white searchlights were again in use and, even as Jon Ley spoke, their searching fingers began to comb the heavens.

Leda snapped on the motor and we rose higher, swerving and dodging to avoid the groping pencils of light. In spite of her skilful maneuvering, a beam struck us for a moment and flickered over the plane before she could evade it. At once two flyers

turned and mounted in our direction.

I had thought our little ship had flown swiftly on its trip to the city but I was amazed at the way it now leaped forward. The metropolis was left behind swiftly, and the guard planes redoubled their efforts to overtake us. Her face grim, Leda gave one look at our pursuers and moved the speed control still higher. The plane strained onward, quivering and vibrating at the unaccustomed speed. The larger guard planes fell rapidly astern and were hopelessly distanced but still we hurtled through the night.

CHAPTER IV

The Retreat

I MUST have slept, for I awoke to full consciousness as a slight jar announced the landing of the plane. Dawn was breaking in the sky as we alighted from the cabin. I breathed deeply of the fresh clean air of the morning and felt very glad to be alive. Leda, too, felt the beauty of the moment, and we stood side by side watching the changing glory of the eastern heavens. I drew a deep breath and turned to her.

"It's the same old glorious earth, any way, even if times have changed," I laughed. "It's a beautiful morning, isn't it?"

"Yes," she said, unconsciously slowing her quick, clipped speech to something nearer my own lazy drawl. "A new day dawns."

She was silent and a far-away look came into her eyes.

"Why?" I asked, curiously, "has that phrase I uttered on the spur of the moment made such an impression on you and on the others?"

"'That phrase' as you call it has been our watchword for centuries. It was no accident that put those words into your mouth, but destiny. But you will know about it later."

I shrugged my shoulders carelessly. So much would be learned in time. Meanwhile there were other questions.

I looked over our surroundings. We were, it seemed, on the sloping floor of a great valley whose soil was of hard, black mud and rank grass. From where we stood, it sloped downward to a small stream which flowed into a little lake, barely discernible through the trees to the south. Swamp grass, and reeds grew everywhere. Gnarled willow trees drooped their heads in the valley and on the shores of the stream. On the higher land, beyond the point where we stood, were other trees, some giants that were decades old.

Under one of the latter, not far from us, stood a small frame building, perfectly square and rudely constructed. Into this hut the old man had gone.

"Where are we?" I asked.

"In the Great Valley."

"And that river?"

"The Mississippi."

I looked again at the quiet stream that had once been the turbulent Father of Waters. Then, as never before, I realized how new the whole world was to me. Many a time I had ridden in the steamboats that one plowed upstream against its swift current. Often I had fished in it and had twice attempted to swim its more than a mile of width. I had seen it in flood time—a great sea of muddy brown water, stretching miles wide, roaring down the valley and sweeping everything before it, leaving death and destruction in its wake.

"You find it greatly changed?" Leda asked, fathoming my thoughts.

I told her of the river I had known—a vast artery that carried the commerce of a wide and fertile region, a link in the Great Lakes-to-Gulf waterway. She explained its change.

"The World Catastrophe made many changes in this country and the springs which feed it to the north are slowly drying up. I have seen ancient pictures of it when it was a mighty river, and it must have been a truly marvelous sight. We have few boats today. Those that we have are but gilded pleasure boats for the rulers and freight ships that carry heavy cargoes on the Great Lakes."

Jon Ley came to the door of the cabin and called. We entered the rude structure and found breakfast waiting us—the first meal in my new life. I felt quite hungry and

laughingly remarked that going three thousand years without a meal gave one a hearty appetite.

We had fruit—oranges of great size and of a pleasant taste, with very thin skins and no seeds. Then eggs, toast and a beverage that was clearly a coffee substitute. It was not unpleasant to the taste, but to one having my preference for strong black coffee, it seemed weak and insipid.

"You do not have coffee?" I asked.

"No. We honor the tradition of the breakfast cup but coffee has not been used for centuries. This is made of grain."

"I am afraid I will require some time to grow accustomed to it," I smiled. "But the eggs are very good. The hens have not changed in all this time."

AFTER breakfast, much to my surprise, I was presented with a small box of cigarettes. I lit one with some curiosity, wondering what changes had been wrought in the fragrant weed. They seemed very mild and quite aromatic, and I exhaled the smoke through my nostrils with keen enjoyment.

"It is the one vice that seems to have persisted," Jon Ley remarked, noting my satisfaction. "They are perfectly harmless, however. By scientific effort, nicotine and other more or less harmful elements have been removed and tobacco is now enjoyed by all ages of both sexes."

Settled comfortably in the deep cushioned chair, I turned my thoughts again toward my own position. The many questions that had been surging through my mind during the past few hours, crowded to my lips. Surely there would not be a more favorable opportunity than this to secure some information about this strange new world and the part I was to play in it. I turned to Ley.

"Now will you tell me," I demanded, "why I was expected in an era that is so far from my own in time that the very thought of my being here is ridiculous and impossible? Where have I been for three thousand years that they seem but a few hours removed from the moment I lost consciousness in my own era? And why did the people chant their weird song? What was the significance of the battle in the city streets? Who is it that you fear—who are we now hiding from?"

The old man smiled at my impetuous questions.

"Patience, my son," he said. "It is a long story and I must go back many thousands of years to the beginning. As to how you came here, that I know not. Call it fate, destiny, what you will. Even in your time, I believe, there were those who claimed all time to be relative and debated the possibilities of travel in that medium. Quite evidently you have proved such a thing possible, although even the most advanced of our scientists, who died centuries ago, failed to discover the secret."

I lit another cigarette and, with a smile toward Leda, settled myself to listen.

"The story I must tell is the history of the civilized world, which is a tale of progress and recession, cataclysm and rebuilding, peace and war. It is a tale of the futile struggle of man against every obstacle that nature, destiny and man himself could raise against the march of progress. I will skip the eons of man's climb from the lower animals, since you are doubtless familiar with its phases, and our time is limited. It culminated thousands of years ago, eighteen thousand, in fact, in a highly developed civilization on the old continent of Atlantis. The progressive, industrious and adventurous Atlantians spread over the known world, bearing their civilization and culture to the farthest reaches of the earth.

"Then at the height of their power, came the cataclysm that plunged their country beneath the ocean. The great colonies in Europe, Africa and the Americas, completely exiled by the catastrophe, allowed their civilization to languish or were conquered by barbarian tribes and exterminated. So man's onward march was stayed for centuries."

"There were many in my own time," I said, "who believed the legends of lost Atlantis. They claimed that the destruction of the island was the true source of the story of the Biblical flood."

"They were right," he replied. "In the

year 2954 a great cataclysm changed the map of the world and raised a huge portion of the ancient land above the sea. Excavations by the scientists brought to light evidences of a civilization exceeding all previous conceptions.

"But to continue my story. After the downfall of Atlantis, the world stagnated and culture languished. The climb out of the gulf of barbarism was achieved only after some thousands of years of painful effort. Not until the nineteenth and twentieth centuries did the earth regain its former peaks of advancement. Then inventions flourished and actual progress was made at a rapid rate. You annihilated distance and time, music and letters and art flourished, science probed nature's deepest hidden secrets."

The Story of the Cataclysm

"YOU know much of our times. Do all folks of this present era know as much of us?" I asked.

"Only a few. I have long been a student of the olden days. There are only a few books still in existence that deal with your era. Most of them have been destroyed long ago. Those of us who own such books keep them well hidden."

"And the people of today? What do the great masses know of our times?"

"Nothing. Their conception of history is vague and indefinite. The government schools teach them only a little—most of it propaganda supporting the existing order. They have their folk tales, is it true, of the days when men had liberty and leisure, tales of fabulous heroes who fought personal combats for the rights of men. In the legends you can see vestiges of men you revered: Napoleon, Washington, Bolivar, Lincoln, Wilson, and other men of ideals who strove to make those ideals realities—seekers of Utopia.

"The masses have been told for over a thousand years that Utopia has come. And all of the time their chains are being forged tighter." His voice was bitter and the lines of his jaw hardened. I said nothing and he picked up the thread of his story.

"In the years following your century, men forged ahead with new strides. Television, the monorail and its child, the monorail rocket car annihilated distances and brought all nations closer together. There was harmony in the world, prosperity and work for all, with a scale of living that the world had never known. Education, the arts and amusements grew and developed as machines replaced manual labor and man's leisure increased.

"Man conquered disease and the span of life was lengthened. The population increased until even the commodious earth was crowded. The last frontier was conquered and the far corners of the globe were made habitable by science. The five hundred years following your time saw a veritable paradise made of the world. Cities grew to unbelievable proportions. The earth's wealth staggered belief.

"Then, from too much easy living, the people became decadent. The power of those who controlled the colossal wealth of the world foisted weak fools in the high places of government, incompetent men who would not interfere in the piling up of power by their masters. Privileges and pillage in the sacred name of commerce grew greater and the selfish, short-sighted acts of the money barons brought discord among the nations.

"The year 2555 saw the leading civilized nations at war, and when they were embroiled, the hordes of Asia struck. The leading countries attempted to unite in defense but their real power had been wasted in their struggles against each other. The millions of China, Russia and India swarmed over the earth. Japan, progressive and industrious kingdom of one hundred millions, was wiped out. Europe was overrun and America attacked.

"It was seventy long and bloody years before the west conquered in the struggle. And in spite of all the science and learning, famine and pestilence swept over the world, decimating the population. In the year 2700 there were left less than a billion people on the earth and civilization was tottering.

"Slowly the nations began to rebuild.

Then mother earth who had slumbered for centuries took a hand. The year 2900 saw the beginning of a series of cataclysms almost unbelievable. Earthquakes of wide and terrible destructiveness wiped out whole cities. Tidal waves of mammoth proportions swept in from the sea and great geysers came out of the land as it settled and forced the underground waters to the surface.

"Then the continents were affected and the year 2954 saw the greatest tragedy since the sinking of Atlantis. Overnight the greater portion of Europe sank beneath the sea, the millions of its peoples drowning like rats. Only a few escaped in flyers to tell the story. Then parts of it rose again to unbelievable heights, and out of the Atlantic's depths rose the old Atlantian continent. The Northern portion of Africa disappeared. Much of Asia vanished and the fabulous land of Lemuria appeared above the Pacific.

"The Eastern portion of the American continent was submerged and the Western coast was broken by earthquakes and depopulated by tidal waves. The Caribbean sea overflowed the south and the lowlands of Mexico. The northern portion of the Mississippi valley rose. The South American Continent was broken away from North America and became part of Atlantis, although much of it rests under water.

"In your time the greatest of earth's cities were located on or near the seacoasts. It was still so before the Great Catastrophe—and all were destroyed. In the thirty-first century the total population of the world—centered in the Middle West of your day, the highlands of Asia, the islands that represent what is left of Europe, and the dark hinterlands of Africa and South America—numbered no more than a hundred millions."

CHAPTER V

A Transformed World

I SAT silent, as he paused in his narrative, appalled by this tale of holocaust and world destruction. It was unbelievable, incredible.

"One hundred millions!" I repeated stupidly. "Why that is less than the population of America as I knew it. And India alone had more than three times that number. But there are more than that in the world today, are there not?"

"We haven't come to the modern world yet," he smiled. "But imagine the situation of this remnant of the earth's peoples, having seen their civilization, their neighbors, everything they owned or valued swept to oblivion. Awed, horror-stricken, they lived in terror for generations, never knowing when they, too, would suffer a like fate. Communication among the remnants of the nations was lost. The will to progress was gone. Excesses of all kinds flourished.

"The handful of people remaining were stripped of nearly all semblance of culture and became again superstition ridden. Those who lived refused to bring children into a dying world; and the birth rate fell. Outlying countries, weaker in moral stature from the beginning, returned to their primitive gods and reverted to semi-savagery. Only the remnant of America, that had escaped the worst of the tragedy, and Central Canada clung to the outward semblances of civilization.

"But the year 3135 or thereabouts saw sanity returning. The inner forces of the earth had sunk again to slumber and our people began to rebuild. Slowly they revived the old arts and sciences, and began to develop new ones. They discovered the secret of gravity control and a new era of efficiency dawned. Motors were developed and perfected that would do a maximum of work at a minimum of power. Machinery rose to its former place of importance. By the year 4000, we had reached and passed the previous ages in physical attainments.

"The population had increased but slowly, however, and was entirely centered in five great cities, as it is at the present time. The science of chemistry had reached its highest peak and nearly all human wants were supplied synthetically. Many new foods were evolved from grains, and the only animals in the land were domestic stock kept for food purposes or as pets.

"Fast air transportation eliminated the

need for farms and small towns. All the grain, fruit and vegetables needed by the people were grown on the land within a hundred miles of each city. Those who labored in the soil went out each morning and returned each night. Those who worked in the factories and the laboratories never left the city.

"A few spots such as the spot where you awoke—the old Dunes—were set aside as recreation centers and parks. The rest of the continent was left to nature, and today is only a wilderness, as virgin as when the ancient red men owned it. Trees and vines have overgrown the ruins of the once great cities. Herds of wild cattle, horses, pigs, sheep and dogs, the progeny of those who escaped the cataclysm, roamed the prairies, that once were farms. A few semi-savage tribes, descendants of negroes, Mexican Indians, and a few of whites who survived destruction in the Ozark and Kentucky-Tennessee mountains, are still reported to exist. The rest of the world is much the same. A few cities are supposed to remain in Europe, but I doubt if more than a handful of people today know of their existence."

"Then," I said, making an effort to grasp the import of what I had heard, "the entire known world, the sum total of civilization, is in the five cities of this continent?"

He nodded agreement.

"Of course, the geography of the world is known—or something of it. In the forty-first century scientists and students made efforts to discover something about our new earth. In great air cruisers, they flew over the whole world, making maps, visiting the far corners, cataloging the flora and fauna. But, remember, over a thousand years had passed since the Great Catastrophe, and the inhabitants of the new lands had grown away from even the traditions of their old life. The expeditions were unfavorably received, several were wiped out in Africa and Lemuria, and others to Asia and South America were never heard from. The Atlantian expeditions found a fertile land and many archeological treasures but no inhabitants.

"And you must remember that each of the five cities had become an independent entity. Each produced everything it needed and there was no reason to exploit or even explore the new lands."

"But if that was done nine hundred years ago, surely you have progressed since then," I remarked. I was slowly growing accustomed to thinking in terms of hundreds and thousands of years. "You must have a great deal of time for study and research."

LEDA who had listened silently to the old man's story, laughed. It was a sad little laugh.

"But we have not progressed," she said.

"We have gone far since then," Jon Ley agreed, "but in the wrong direction. The people of the present era are very downtrodden. And there is no incentive."

"What are the five cities of today?" I asked, curiously.

"Chicago is the largest, with about thirty-two millions. Sanpall is next with twenty-eight millions. Then Winnipeg with fifteen, Lansing with twelve and Demoyne with eight millions, respectively," Leda answered me.

I did a little mental arithmetic.

"Then there are only ninety-five million people in civilized America?" I asked.

"Yes," she replied. "And all of them are located in an area of a few hundred thousand square miles."

"But doesn't the population show any increase?"

"No. The birth rate is watched very carefully. Only enough children are born to replace those who die."

John Ley took up the narrative.

"As our cities had grown and our civilization progressed, our liberties were restricted. When the great cities were first planned and built there were some who preached communal ownership of all property and of all industries. But human nature, greed and ambition dominated. The great majority wished the thrill of owning private property and the continuation of the monetary system, little thinking that they were selling their descendants into slavery.

"The inevitable happened as the centuries passed: given a restricted amount of wealth among a certain number of people, soon all will be in the hands of a few. Thus it was

with us. There arose a class who lived by capital alone, who were the owners and who reaped the rewards of the labor of others. This class grew more and more powerful as generation succeeded generation and fortunes grew greater and greater. Those with small fortunes grew fewer while the factories, the property, the laboratories and the fields became the property of the rich. The masses of the population, entirely dependant on the products of the factories and the plantations, were completely at the mercy of those who owned them.

"Inevitably those with unlimited capital became the absolute rulers of the country. The lawmakers, though for a time elected by popular vote, became only puppets who worked in the interests of their masters. And now, even those have given way to a hereditary council of twelve men who control or own the entire wealth of the five cities.

"This council makes our laws, dictates our comings and goings, hires the guards who govern us. Today we have no more liberty than the black slaves of your ancient cotton fields."

"Yet you seem an enlightened people, physically sound, mentally alert, and certainly able to visualize and carry out an energetic defense of your liberties and rights!" I exclaimed. "I cannot conceive of passive acceptance of such a condition."

"You do not grasp the picture," the old man reminded me. "Remember this did not come to pass in a year or two or in a hundred years but is the result of over a thousand. Think how much happened between your own day and the times of the crusades and you will have a better idea of the time it took and the psychological changes that occurred. Remember, too, that each generation was born to fewer privileges and pleasures. The change was very gradual.

"The industries started as stock companies in which many people owned shares, some in vast apartment buildings, some in power plants, some in the newspapers, the laboratories and factories, while some owned land on which they raised meat and grain. But, as always happens, many people could not hold their stock and were forced to sell it. And in this way the few gained control to pass it on to their descendants.

"Then the long arm of capital reached into the schoolroom and into the nursery, rewriting the textbooks, praising the existing order of things through their self-owned newspapers, periodicals and television stations. They strengthened their hold in every conceivable manner. Invention, exploration, political economy, everything that threatened their grip on the people was discouraged and later forbidden by law.

"Today the Council of Twelve, with their families, relatives and dependant supporters number less than two thousand, yet they hold in peonage ninety-five million people. Every man of the masses has his work to do and each receives a salary proportionate to his services. Out of this he must pay for light, heat, clothing, amusement and taxes. Standardized scales of living are prescribed by law, and at the end of each year a man finds himself with . . . . nothing, regardless of the size of his income."

"But what of doctor's bills and other miscellaneous expenses?"

"These services are furnished him and his family at government dispensaries, free of charge when necessary. In case of death, his body is disposed of at the city crematory. His two children that the law allows him, are born in government hospitals and are educated at government schools, each being educated according to the station and occupation of his parents."

"In other words, a caste system prevails?"

"Practically that, although it is possible for those who show great inherent talent for different lines from those of their parents to be placed in the positions they are best fitted for."

"And the aged . . . ."

"Are cared for at the expense of the government after they are released from employment at the age of eighty."

"At eighty? But a man is feeble at that age!"

"No more. They have increased the average span of life to 110 years and some live a great deal longer. Few of the workers, however, care to do so. They are burned out when they leave their labors and

soon fail. Work today is not as you knew it. Day after day, for sixty years, the factory worker sits before the machine he operates, his eye on a clock, pressing a lever or a button at regular intervals. It is the drab monotony that eats out their souls while yet in the prime of life. They become automatons, robots, and without their work they die."

Regrets

THE old man's voice relapsed into silence, and I sat musing over the perplexities of this strange new world. Sitting at the breakfast table and smiling into the laughing eyes of Leda, I had felt at home, among friends, on familiar ground. In the light of what I had just heard, I knew that I was among strangers, as far out of touch with their life and civilization as if my journey had been through space to another planet.

I considered the story from all angles. Part of it I accepted without question. The great wars? We had had one in my own time that had embroiled the civilized nations of earth with horrible loss of life and enormous destruction of property. And out of it had come the epidemic of influenza that, in spite of all medical science could do, had killed more Americans than the war.

I could not doubt his tale of geographical changes and natural catastrophes that had wiped out whole continents. We, too, had had destructive earthquakes, tidal waves, and volcanic eruptions. Islands had been created in the empty sea, or had sunk below the water even in the nineteenth and twentieth centuries. Who could say what might not happen in over three thousand years?

But I could not grasp the changes in human nature that seemed to have taken place. In that, I found my mind unable to encompass the changes in viewpoint that had taken place through the centuries. My own viewpoint was still that of 1931 when men were liberty loving, and—although civilization and the pressure of growing population had brought necessary restrictions—personal freedom was still jealously guarded. But there would be time to study man's psychological evolution later.

I turned to the old man.

"What is your position in this new scheme of things? And Leda's?"

"We are not of the workers nor are we of the rulers. Ours is a unique position. We are independents who have inherited small fortunes that have escaped assimilation by the great ones. Our ancestors profited by the mistakes of others and lived well within their incomes. As a result we are able to live without labor yet our scale of living is but little better than that of the workers. We are not molested by the Council as long as we do not violate the laws—at least openly," he chuckled.

"You mean. . . .?"

"Well, there are some very peculiar laws," he replied. "No one is permitted to study except under the supervision of the Superintendent of Education, and then only from textbooks authorized and approved by the Education Committee of the Council. Of course, these textbooks are pure propaganda; everything pertaining to ancient history that might reflect against the existing order or create rebellion has been censored.

"No one can study the sciences, astronomy, chemistry, physics, geography, geology or their branches except those in the official laboratories. Sociology, psychology, and philosophy are legally banned and almost forgotten. Research work of any kind is discouraged and today the alleged scientists in the laboratories are little more than drug clerks who compound old formulas. There has been no new invention *for over five hundred years!*

"But I am a lawbreaker, none the less," he admitted, continuing. "I have inherited a library of the old books and texts which I keep safely hidden and study as I please. These I have supplemented with others, salvaged from old ruins in the days of my youth. There are only a handful of independents, and our goings and comings are never scrutinized closely. We may leave the cities if we choose, since we own our own planes."

"Can't the workers ever leave the cities?"

"They are supposed to stay in them, ex-

cept on the holidays when they may go to the parks and recreation centers where the games are played. Indeed, they have no way of leaving the cities since they are not allowed to own planes; and the monorail lines only traverse the city and extend to the parks. Motor cars are small and are used only in the cities as there are no roads to ride on outside the city limits."

I turned back to some of my original questions.

"But where do I came in? Why was I expected? Surely you cannot trace to any records of my disappearance in the past."

He smiled at my flood of questions and answered the last one first.

"I am sure that it was not that. From what you have told me you were simply translated through time, leaving no trace behind. Your friends would simply mourn your disappearance as an inexplicable mystery. Your relatives might have made some search for you but, from what I have read of your times, disappearances were common occurrences."

I NODDED in agreement.

"But I had no relatives and only a few friends of the most casual type. They may have wondered at my disappearance, but I am afraid they made little effort to find me."

I grinned to myself as I thought that, according to my own conception of the time that had passed—a matter of hours only—my friends at the college were even then searching for me, while to Jon Ley and Leda, in the same room with me, the people I called contemporaries had been dead and forgotten three thousand years.

"And was there no maid to mourn you?" Leda asked, slyly.

"None at all," I assured her. "I had little time for them."

"You must have been very busy." And I detected a hint of laughter in her tone. "What did you do that was so all-important?"

"I was a student," I confessed. "And in those days the ones who really studied had little time for other things. You see our lives were shorter, we had fewer years of active life, and there was so much that could be learned. Now I find myself in a new age where all I learned is useless. I know less of the world you know than one of your school children."

"No. You cannot say that," she cried. "You knew a world that was highly competitive, where a man could carve out his own destiny. You know things of life such as we never dreamed of. I have studied my great grandfather's books and I think your days were part of the true golden era."

Jon Ley also encouraged me.

"You know many things that mankind has forgotten through the years. As to why you came here, I do not know. Perhaps fate or destiny directed you; perhaps chance or accident. You are here, however, and there is none who knows how to send you back, even if we would let you go."

I looked at Leda and smiled as she colored slightly:

"I have no wish to go back," I said. "But what will be my position here?"

"The people as a whole are satisfied with their lot," the old man replied. "They know no better and their fathers before them knew no better. Nor have they been taught to conceive of better things. But there are some who are discontented and dissatisfied. They have kept alive the old tradition of universal equality in spite of the efforts of the council to eradicate all doctrines of the old eras.

"And among their folk tales, handed down by word of mouth from father to son, is one that tells of the coming of a man from the distant past who will deliver them from their slavery. I think myself, that it is a remnant of the old belief in the second coming of Christ; but since the death of religion among the masses, it has been distorted into a legend of one who will deliver them from the physical oppression of the Council."

"And you believe that I am the man picked by destiny to act this part?" I asked.

"I do not know," he replied. "Because of my years I am venerated by the workers. I have fostered the belief among them, thinking that it did no harm and that the germ of hope served to lighten their burdens. This sign I bear," touching the silver ornament

that dangled from his girdle, "is the symbol of those who believe. I have become the priest of this—their only religion.

"The Council—thinking our cult a harmless reversion to faith—have tolerated us as a group of visionaries. But with your dramatic coming, filling as it does the conditions of the ancient prophecy, and my acceptance of you as the expected leader, makes us a menace to their supremacy. Should the agents of the Council lay their hands on you your life would not be worth a moment's purchase."

I received the news, that I was virtually a fugitive with a price on my head, in silence. Jon Ley continued.

"That is why we hurried you from the city area at once when the ill-timed revolt broke out. Now that they are warned that one has really come out of the past, they will be doubly on their guard."

"Oh!" I said rather stupidly and puffed hard on my cigarette. My role in this new drama was decidedly not to be one of mere spectator. Then a new idea struck me.

"But what if I don't choose to be a fifty-first century Moses? If I tell the truth—that I am only an accidental visitor who asks nothing but peace—will the people and the Council not believe me? And the credulous ones go on waiting for their real Messiah?"

A look of disappointment flashed over his wrinkled face and he shook his head.

"I'm afraid it would do no good. The story has gone about now and the rulers would think it a trick to gain time. And even if it were believed, the disillusionment of the people who have hailed you as the 'Master' would be a cruel blow."

"Well . . . ." I made a sudden decision. "I will do my part to help them. Let them know I am no god, however, but only a human being who will help them to the utmost of his ability in their fight for liberty."

The old man's face glowed and Leda's eyes sparkled with excitement. I extended my hands across the little table and each took one in silence but the way they returned the pressure of my fingers brought a lump to my throat.

"And now that I have accepted my fate," I said decisively, "there are many things to be done. I do not intend to take a passive part in the affair. If I am to be a leader I will be one in fact not in theory."

CHAPTER VI

The Conspirators

FOUR nights later we climbed into the plane and took off into the darkness toward Chicago, under the gleaming stars. The constellations, though familiar, were slightly altered from how I had remembered them. All had shifted position. A few had disappeared. But I wasted little time on astronomy for my thoughts were entirely on the stirring events that were already shaping around us.

Although Jon Ley had admitted his own skepticism concerning the coming of a deliverer out of the past—his followers believed passionately and whole-heartedly in the fullfilment of the prophecy. The year 5080 had been the ordained date of the deliverance, and my sudden arrival seemed the answer to many centuries of expectation. And my aged mentor, I knew, was determined to take full advantage of the situation.

I learned that plans had been formulated for the successful staging of a revolt, but they had been kept secret through many decades, waiting the coming of the "Master". They had been clever schemes, too, and given the element of surprise, they had a fair chance of success.

The old man and his board of strategy had counted to a great extent on the contempt of the guards for the masses. Overpowering their enemies by sheer force of numbers, the revolutionaries had planned to gain control of the guards' planes and the deadly, paralyzing orange ray. Now that the time for action had arrived, the police were on the alert. The premature demonstration on the night of my arrival had forewarned them of the temper of the workers. The officials would take no chance of losing control of their weapons by any surprise move on our part.

I had learned from Leda and Jon that

other weapons were unknown. Firearms had died out soon after my own era while their use and even their existence had long been forgotten. In the great wars, gas, fire and electric wave projectors had played an important part in destroying humanity; but even the secret of these weapons had died out. The only war instruments, centered in the hands of law and order, were the orange ray projectors on the guard planes. Indeed, there had been no need for lethal weapons. Crime, through strict application of the death penalty, had died out except for infrequent minor infractions of the numerous laws. There were no enemies left to challenge the supremacy of the cities. The half-starved wandering hordes that inhabited the wilderness kept their distance.

I had inquired concerning the weapons of these nomadic tribes, but my companions knew little about them. Clubs, rude spears and even ruder bows and arrows apparently served their needs. Any help from them was quite out of the question.

None the less, as we sped through the night, I was occupied with the problem of arming my supporters. In making my decision, although I did not regard myself as their promised deliverer, I had resolved to lead them until their rebellion had been successful or had failed utterly. If the former, I could turn over the power to a successor elected by the people. If we failed —well, I could visualize the outcome. My reward would be the age-old penalty for leaders of unsuccessful revolts—death.

A word from Leda warned me that we were approaching the city. I made up my mind hastily. We must have guns of some type or other. I cursed my own lack of curiosity back in the old days when I could so easily have studied the intricacies of firearms. Like so many others, I had accepted rifles, revolvers and cartridges as matters of course. Like the majority of boys, I had made gunpowder, *sub rosa*, in the high school laboratory when I was supposed to be making up back experiments in chemistry. I remembered its constituents and believed, with a little experimenting, I could find the right proportions of the ingredients.

A sudden thought struck me. Even if I succeeded in making arms of some type, I would have no time to teach marksmanship to my "army". But there was one type of weapon that needed no experienced eye—the riot guns, sawed off shotguns used by both gangsters and police of my own day with telling effect. I was confident that I could design a shotgun of sorts. And certainly there must be artisans in metal among the rebels. With their help, I decided, it would be possible.

The humming of the motor suddenly ceased and we hung over the darkened city. The great bell had sounded over an hour ago and all lights had been turned off. The immense buildings, with their sleeping millions, loomed gigantic in the darkness. My first glimpse of them had been amazing enough but, because of the disturbance in the streets, I had not studied them carefully. As I peered out into the blackness, I tried to trace their solid lines, with the network of streets connecting the different levels far below us. A beam of light was visible, feeling its way among the great structures. I turned questionably to my companions.

"The guards' plane," Leda answered my unspoken query.

WE continued to hang motionless at our great height, while the guards made their leisurely inspection. Another beam of light to the west showed that more than one ship was patrolling the city streets. While we watched, the plane turned slowly toward the north. Silently as a withered leaf it began to descend. Directly below us was the flat roof of a building. With infinite caution Leda maneuvered our craft until it settled softly to the roof. I rose to leave the cabin.

"Wait," Jon Ley cautioned.

For some moments we listened intently to make sure that our arrival had passed unnoticed. Hearing nothing to indicate the approach of the guards, I followed my companions down a flight of steps into the interior of the building. Here we found an elevator that whirled us swiftly and silently past the hundred or more floors to the basement.

We left the car, traversed a short corri-

dor and entered a small room after Ley had unlocked the door with a key from the pocket of his tunic.

"Who?" a voice challenged us in a rasping whisper.

"Jon Ley."

"The Master is with you?" a different voice inquired.

"He is here."

At once the room was flooded with light from a small lamp on the table and I looked about me. Besides my two companions, eight other people were grouped about the small room, six men and two women. They greeted me gravely.

"Hail, Master!" said one in the rasping voice that had first greeted us. I extended my hand and as he came forward to grasp it, I took stock of him. I am no child, standing almost two inches over six feet and weighing more than two hundred pounds. But he towered a good three inches over me and must have outweighed me thirty pounds. His yellow hair waved rebelliously backward from a fine forehead, and his grey-blue eyes looked into my own green ones with steely directness. The great muscles bulged in his bare forearms and his square jaw was set in a determined mould. He would have been handsome but for a red scar that zigzagged across his left cheek from eye to mouth. He clasped my hand reverently in both of his and a look of something akin to awe appeared on his features.

Another man approached, a smaller, stockier man whose hair gleamed red in the light. He, too, was well-developed and his fine features broke into a smile as I extended my other hand to him.

Dik Steel, Ley explained to me was the name of the giant and the smaller man was Lon Mede. Others came up and were presented to me. Lee Sale, the young doctor who had found me and brought me to Dunes Park and the care of Ley; Don Wolf, slender as a lathe and giving the impression of rapierlike strength; Wil Gore, a studious appearing young man whose stained hands told of work in the laboratories; and Ben Duse, big and silent, whose copper-tinted skin, black hair and eyes, and high cheek bones told of Indian blood that had persisted through many generations. The two women were the wives of Mede and Stele.

Introductions over, I repeated my pledge that I would lead them, and their cause would be my cause until success was won or all hope gone. Dik Stele, who seemed the acknowledged leader of the group, answered me.

"God or man, it is enough for us that you are here as the old saga foretold. We believe you were sent to help us and will follow you to death."

He resumed his seat on the great bench and the others murmured their assent. We talked of the cause and I found my forces comprised some twenty-five thousand workers of various grades, and their wives and families, bringing the total in the neighborhood of 55,000 people, all pledged to the dream of liberty. The six were the leaders and Jon Ley had ruled as a regent until the coming of the leader.

"What of the great mass of the people?" I asked.

"They will swing into line," Stele answered. "We have limited ourselves to those we were sure of, people who are better educated than the average and who have kept alive the old traditions with this as our standard."

From inside his tunic, he brought forth a faded, time-worn bundle and shook it forth—a small American flag, the red of its stripes still gleaming bravely. I fingered the banner tenderly and, seeing fully sixty-four stars in the small blue field, realized that it must have been made many years after my own era. The extra stars? Canadian provinces, perhaps, and Mexican states that might have joined the union in the dim past. Or new states carved out of territories and old state boundaries.

"*In hoc signo vinces,*" I murmured.

"You said . . . . ?" Stele asked.

"In this sign conquer," I translated. "Let this be our banner. It was once a pledge of liberty to the oppressed of the world. Let it wave again over our cause."

THEN came the question of weapons and I outlined my plans for constructing them. Here I found Mede and Stele of invaluable aid, as the former was a metal artisan and a designer while the latter was superintendent in one of the great foundries. We pored over the rude sketches I had made and I explained the nature and purpose of shotguns. Mede quickly grasped the technicalities of construction and agreed to work out the design. Stele felt certain, as he was comparatively free from supervision, that the guns could be made in his foundry using help that was loyal. There were machines already in operation that would perform much of the labor.

Jon Ley, listening to our talk, chuckled in his long white beard.

"You are truly the Master," he said. "You would use the Council's own factories to make the weapons that will overthrow them. It is a good plan."

"What would you?" I replied. "There is not time to establish our own plants. Already the Council knows of my coming and will look with suspicion on any movements by a body of workers. This way we will have good metal, efficient workers and excellent machinery at our command."

Next came the question of ammunition. I knew, in a mechanical age we would be able to secure quantities of steel ball-bearings that would serve even better than the lead shot; but the cases, with their complicated construction, presented a problem. Stele watched, asking occasional questions as I sketched a diagram of a shell.

"We can easily make cases of metal, also, perfectly machined to fit the inside of the guns," he said. "But what are you going to use to hurl them from the gun?"

I explained how gunpowder worked. He nodded comprehension.

"Wil Gore can help you there," he said. "He is Chief Chemist in one of the largest laboratories and has the power to engage in research within certain limits."

From Gore, I learned that salpetre, sulphur and charcoal were in common use and he could also produce the fulminate of mercury to ignite the shells. If any of the substances were not available, he would see that they were made.

"You can not make sulphur, surely," I suggested. "That is a basic element."

"But we can," he smiled. "Long ago we found out how to readjust the component electrons and protons so that we can make any substance at will. It is a very necessary part of our work since many elements are no longer obtainable in their natural states."

We decided on a hundred guns to be distributed among carefully selected sub-lieutenants who would be instructed in their use. Each of us were to be supplied with them together with a quantity of ammunition. I found that the guards depended ordinarily on short wicked whips, whose keen lash as well as the heavily weighted handles, made them formidable weapons. Hence we decided to arm the mass of our followers with long-handled spears. I felt that they would prove wickedly efficient in this weaponless world.

The people were usually passive and subservient and the ray projectors served to break up the infrequent demonstrations. These orange rays, I found, were similar to intensified infra-red rays—although visible—and it was possible to use them as carrier waves for electric charges of high intensity. They had a paralyzing effect on the nerve cells and lengthy exposure to them proved fatal. By increasing the charge, too, they could be made instantly lethal in their intensity, although the range was short.

The only projectors were in the hands of the Council and had been for centuries. I considered the possibilities of constructing similar machines but none of the group was able to supply any definite information about their design. I gathered that the secret was kept closely guarded by the Council and decided to confine my efforts to weapons I understood.

At last Stele glanced the tiny chronometer on his wrist and announced that the time to break up had arrived. It was settled that I should go, disguised as a worker, to the laboratory with Gore where we would work on our powder. Mede would complete the

designing of the weapons and Stele would prepare a place in the foundry where they could be manufactured away from prying eyes. Sale, the doctor, was to be liaison officer, since he could move freely about the city, between our group and the lesser leaders. Wolfe was in charge of the monorail system and would organize his most loyal subordinates so that when the day of revolt arrived, the transportation system would be in our hands. Duse, chief of air pilots, was to organize a squadron of flyers of the fastest planes.

We chose, for the meeting place of our forces, the great central plaza—a parklike tract of land in the midst of the buildings. It could easily hold the entire population of the city if necessary and no street levels or monorail tracks passed over it. Our men could reach it by rail in a few moments from any portion of the city while planes in any number could land or take off there. We set the time at dawn one week to the day.

"And may our efforts be successful," I said as we departed and the others answered, "A new day dawns . . . . "

CHAPTER VII

The Revolt!

ONE week passed—seven days of feverish activity for the new and secret revolutionary party. Under the skillful direction of Stele and Mede thousands of pike heads were prepared and fitted to stout handles. These spears, wielded in the hands of determined men, fired to fanaticism by the intensity of their struggle against oppression, would do deadly execution against any who opposed them.

The guns, turned out in the dead of night by the light of improvised lamps, by some of the finest craftsmen in the city, exceeded even my wildest expectations. From my rude sketches and explanations, the two had evolved weapons that would compare favorably with the finest shotguns of my own day. They were double-barrel affairs and were surprisingly light, being made of a beryllium-steel compound, lighter than aluminum yet stronger than any other metal alloy. The barrels were long to give added range and the well-balanced stocks, while crudely finished, were made of a synthetic rubber compound, hard yet flexible enough to offset the recoil.

In the laboratories, Gore and I had experimented until we had powder which, while not having the efficiency of the smokeless powder—was equal in power and effectiveness to the once-favored black variety. With the amazing efficiency of the day, cases were turned out in a plentiful quantity and filled under my direction.

As laborers going out to the fields, my rifle corps had left the city the morning before and flown many miles into the wilderness. Here safe from the prying eyes of the guards, I gave my men instructions in loading, unloading, sighting and firing their strange new weapons. We had no practice at marksmanship since I felt that little would be gained and a great deal of good ammunition wasted. In spite of the half-choked barrels, I knew that the steel shot would spread sufficiently to be effective over a wide area. All the men need do would be to point the weapons and pull the triggers at the proper moment.

I shot off several rounds of shells to illustrate my points and found the weapons marvelously efficient in spite of their hasty construction. As we were making preparations to depart, an inquisitive pig, the scion of domesticated porkers who had run wild in the jungle, nosed his way into the clearing where we stood and regarded us inquisitively from a safe distance. I raised my weapon hastily and fired. Although fully fifty yards away, the pig vanished, leaving only torn shreds of flesh. My army, seeing a practical demonstration of the new weapon, gripped their guns tighter and their lips set in grim lines that boded no good for the ruling Council and the guards.

At dawn of the great day, our men waited, each in his own home, for the great bell to sound the end of the sleep period. The gong that sounded the call each morning for the workers to arise and prepare for work would today be the signal for their revolt.

In a small swift flyer, I waited with Ben Duse and Leda on the top of one of the highest buildings. I had not wanted Leda there for I knew that ours was a dangerous mission. But she had insisted on coming and at last had her way.

"I will go where you go," she had said. "Should you die, I will die, too. I will not live away from you." And in the thrill of my discovery of her feelings toward me, I had given in reluctantly.

I knew our blow would not be entirely unexpected. The Council, whose guards and spies were everywhere, had long since discovered something was afoot as proven by several efforts to capture me that had failed only by chance and the devotion of some of our followers. I did not doubt that many squadrons of the guards waited the signal even as we waited it. Our own spies had reported that the Council had increased the number of guards during the last few days and though their weapons would be but the whip and the orange ray, our victory—if victory was our portion—would not be entirely bloodless.

The first pink streaks of the dawn showed on the eastern horizon. We sat in silence, smoking cigarettes guardedly. Gradually the stars faded and the day was at hand. The mammoth buildings stood out nakedly in the cold morning air, their windowless sides grim and forbidding, the street levels bare and deserted. Yet I knew that within those buildings were many others waiting only the bell to strike, even as we waited.

Then came the gong, its liquid golden note reverberating and quivering on the still air. Its tone lingered and died echoingly among the farther building as I looked again at the city. From every building people were streaming into the streets. The majority of them massed aimlessly on the different levels, sensing something unusual around them but not knowing just what was happening. But here and there in the crowd were men carrying spears, who moved purposefully toward the platforms of the monorails. Then came the cars, great cabins swinging along suspended on their slender rails. At each platform new recruits surged into them and the cars swung on toward the meeting place.

I WATCHED car after car pass along those lines that were visible from where I stood as each filled with their human cargoes gave way to empty ones. Truly, Sale was doing his part effectively.

The Indian touched my arm and I tore myself from watching the milling thousands in the streets. Duse pointed to the north. Faint in the distance, from that further portion of the city where the rulers dwelt, I could see the guard planes winging their way toward us.

"Come," Ben said, starting the plane and I followed him inside. A whir of the tiny motor and we were off toward the gathering place. As we rose in the air a flag of red and white stripes with white stars on a blue field, broke out from our rudder and fluttered madly in the wind.

From every roof around us planes took off and followed ours, falling into the V-formation used by war planes of my own day. We rushed through the air toward the plaza. Far away I could hear the wailing of the sirens on the guard planes as they approached. And far below us I could hear the thunderous voice of the crowd. They were singing, these slaves of the rich, singing the chant of deliverance and their voices were jubilant, inspired. I turned to Ben Duse at the controls of the plane.

"A singing army is never defeated," I said.

"May it be so today," he replied.

Then we were over the square and I could see the men, with the sun glinting on their pikes, massed in orderly rows and at their head the giant figure of Stele with his little company of riflemen. Approaching from the other side of the plaza were the ranks of the police, their whips swung over their shoulders. Steel glinted in their hands and I saw that each carried a long sword. Then I knew that with these trained and drilled men meeting our steel with steel, the odds would not be so overwhelmingly in our favor. We outnumbered them three to one but our forces were untrained and undisciplined.

We sped over the square and I saw the planes of the council rushing to meet us. The projectors in the bows of each plane glowed with orange light and I knew that their beams were being directed toward us.

"How far is the beam effective?" I asked.

"Less than two hundred feet in the day time," Duse answered. "But under that range they will penetrate even the glass of these cabins."

"Then we won't let them get that close," I said, reaching for my gun.

We were very near to the first plane, now. I threw open a small window in the front of our plane and took careful aim. I saw the man at the controls of the guard plane jump to the ray projector and move a lever frantically. I felt my shoulder go numb as I pulled the trigger. The gun blared—both barrels—and I was hurled away from the narrow slot by the recoil. But my shot was true, for when I looked again the ray projector and a large portion of the front end of the plane had disappeared. The ship drifted idly with its gaping front and then, slowly at first but gathering speed, it sank toward the ground far below. As it crashed, I turned to Leda handing her my empty gun and receiving a fully loaded one in exchange.

"You injured their anti-gravity current," she remarked.

Duse was guiding the ship swiftly toward the next enemy plane. The guards were flying in single file—some distance apart, and there were fully twenty of them opposing our fifteen. We met the second, and I profited by my first encounter, firing before the ray reached the effective range. My shoulder was still numbed from the dose it had received, weak though it was. This time I shot from the left shoulder, resting my gun on the ledge and taking a snap shot with one barrel. As before, the projector and the front glass of the plane received the full charge and shattered. As Duse swept over the crippled ship, I poured the charge of the second barrel into the gaping hole. I caught a glimpse of the horror stricken face of the pilot as his ship began its sickening dive.

Then we were past him and sweeping toward the next plane. I reached for the reloaded gun and another ship went down to join the first two.

Noting the fate of its predecessors, the fourth plane held back, waiting its comrades to come up. They bunched and came toward us slowly in a solid phalanx. But we, too, were prepared. Duse slowed our plane as did the pilots nearest us while those of the wings of our formation rushed forward. From an inverted V, we became a great U, the points encircling the enemy. Before they could solve the purpose of this maneuver the ends of the U closed into an O and we began the ancient form of fighting used by the Indians in raiding emigrant trains. In a wide circle, beyond the range of the stabbing orange rays, we swung around them leisurely, all the time pouring a rain of death and destruction upon them. Massed as they were, the first disabled ships impeded the progress of the others. Even my inexperienced gunners could not miss, and under our withering fire over half of them were out of commission in the first few minutes. The remaining ships rose in an effort to escape. We shot them down to destruction on the buildings and the streets below us.

ONLY four were left when they made their last desperate attempt to avoid extermination. Full at the circle of slowly moving planes they hurled themselves. One went down and the orange rays of the other three cut through our line. Two of our planes dipped and hurtled to the ground, the circle broke and they were loose. It was a desperately courageous maneuver and I applauded it, but the three planes must not escape.

Swiftly we straightened out in pursuit and I blessed Duse for his selection of our ships. We flew at a speed that I had not believed possible and rapidly overhauled the larger, heavier guard ships. From a distance of but a few yards, I sent the raking blast from my gun through the side windows of the nearest plane. The charge struck the control board, demolishing it. We turned to the second plane and found it

already besieged by several of our squadron, passed it and hurried toward the last one.

"Above it," I cried as we came near, knowing the projectors could not be turned upward. As we hovered above it, I fired through the trap in the floor, taking careful air at the ray lamp projecting from the bow. It disappeared as if sliced by a giant knife. I turned to Ben.

"Circle them."

He did so, threatening and crowding the plane until it came to a stop.

"Signal them to turn back to the city plaza," I called to Leda." Tell them we will spare their lives if they will do as we direct."

She spoke the message into the radio of the plane and received an affirmative answer from the guards.

We turned back toward the city, our squad swinging in behind us. As we approached the plaza, the crowds on the tops of the buildings and on the upper street levels saw us. Some cheered wildly, others were silent, and I wondered at this, greatly.

We reached the plaza and our planes settled slowly to the ground among our land forces and the hordes of murmuring, cheering people behind them. We stepped from our ships and looked around us. There was no need to ask who had won. The ground was dotted with crumpled, contorted figures. Many wore the brief white garments of the workers, the sign of the wheel crudely fashioned on the breast of their tunics, silent proof of the fighting qualities of the Council's forces. But the majority of the inert bodies wore the nile green of the guards.

A tall figure swung over towards us with great lumbering strides. Dik Stele, a red welt crossing the old scar on his cheek and blood streaking his white garments. Beside him trotted the stocky figure of Mede, likewise blood-spattered and with his left arm, crudely bandaged, dangling uselessly at his side.

"Master," Stele gasped. "You are hurt?"

"My arm was struck by the ray but it is nothing. You have won?"

"Yes, the Council's forces are beaten."

"Where are your prisoners?"

"Prisoners?" The big man's face was puzzled. "We took no prisoners. All who have not escaped us by flight are—there." He waved his hand expressively in the direction of the battle field.

I could not blame my lieutenants. After centuries of abuse and ill-treatment at the hands of the guards, I knew that the people felt that nothing short of complete annihilation was sufficient punishment for the green-clad enemies.

Then Leda and Duse approached, the latter herding the ten prisoners from the captured plane in front of him, my gun slung over the crook of his arm with all of the nonchalance of a Tennessee squirrel hunter. I turned to the captives as he halted them before us.

"Who is your leader?"

One of them stepped forward a few paces.

"Go back to the palaces of the Council," I said, "and give them this message: We are in complete control in Chicago. Tell them the Master rules and the old order is ended. I will treat with the Council in this place today, one hour before sundown. They must meet me here."

He stared at me incredulously.

"But, Sire," he cried."The Council—they will never come."

"The Council is not composed of fools," I said. "They will come. Tell them how their forces were wiped out in the city. Tell them what happened to the ships of your fleet. And tell them that if they are not here on the appointed hour, I shall seek them out in their homes and not a man, woman or child will I spare. If they come, they have the word of the Master that no harm will befall them."

Then as the sun reached high meridian, the plane sped off to the north with its tale of defeat. The day was won and the city was in our hands.

CHAPTER VIII

The Terms

WE met the Council in the Plaza that evening. They came in great ships of blue whose appointments spoke of luxury

hitherto unknown on the planet. Their planes settled gently to the ground in a group near the center of the square where I awaited them with Jon Ley and my six lieutenants. Behind us stood our forces, drawn up in a semblance of review formation. The crowds of the citizenry grouped themselves in the Plaza and on the nearer buildings.

Out of the planes came the Councilors and their retainers. They moved slowly toward us, hesitated and finally came to a halt at a distance of a hundred feet. Stele went forth to meet them and returned with twelve men whose tunics of darker, richer blue identified them as members of the Council. These were the men whose riches had held ninety-five million people in virtual slavery.

I regarded them closely. All were men of middle age and more than one showed the wrinkled skin and white hair of advanced years. Almost without exception they were short stocky men, and the voluminous folds of their blue toga-like garments failed to hide the gross contours of over-indulged bodies. Cruel hawk-like eyes peered out from fat faces in striking contrast to sensuous mouths and weak chins. And on all of their faces appeared mingled expressions of fear, hatred and disdain. They feared us, but they looked down upon us with scorn born of generations of contemptuous toleration of the servile working classes. And, in the society that had spawned them, there existed but two classes—themselves and their slaves.

They listened in silence as I told them of the breaking down of their power, of the defeat of their guards, the annihilation of their fleet. I can only imagine the bitterness that filled their hearts as they heard the story of the end of their former regime. Yet not by the slightest change of expression did they betray any feelings but those of the utmost disdain for us and our achievements. I paused when I had finished the story of our victory and one, the leader of the Council, spoke.

"We grant the truth of your assertions. What are the terms you propose? What is it you want of us?"

I considered carefully before replying.

"We who fought in the struggle ask nothing for ourselves. Our efforts were made in the name of the people and in the final analysis it is to them that you must go for terms," I said. "As temporary representatives we have outlined the major terms, which I now give you:

"First, you will relinquish all claims to the government, the courts and the keeping of the peace, which shall be turned over to duly elected representatives of the people.

"Second, you must give up all claims to ownership of factories, property, fields and laboratories, retaining only your personal property and unemployed capital. All industries on which the people depend for the necessities of life will henceforth become the property of the government.

"Third, all class distinctions will be abolished and in all further dealings with the people you must meet them on a common footing.

"Fourth, you will turn over to the new government the secret of the orange ray and any projectors that still remain. These will be reserved for the common defense."

The Council considered our terms among themselves for some moments. Finally the leader spoke.

"The fourth provision is impossible. You have destroyed the entire supply of the projectors and the secret was destroyed with them. There are none now alive who know how to make them. As for the other provisions, what is the alternative if we refuse to surrender our rights in this way?"

"Defeated despots have no rights," I warned them. "You would not be alive thirty seconds from now if I but gave the word. Don't you understand that you are entirely at the mercy of the people? There are no laws of justice and mercy for those who have lost the power of enforcing their dictums. Our terms are more than generous."

"Yet you have said that it is the people with whom we treat. Have we not the right to present our side to the people? Your party with the strange new weapons that destroyed our guards, have won, it is true. But you are only a small portion of the

people and number but a few thousand more than our class. There are many thousands, yes, millions, who were happy and contented with our rule. They were well treated, they were provided for, they were happy and satisfied with the treatment they received. I grant that we have been thoughtless and often intolerant of the rights of the people, yet in the main we have acted for their good.

"IF you are sincere in your statements of your purpose, it is this great body of the population who must decide the question since it is they who gain or suffer most from what we do here. Let them choose their rulers."

"No!" Jon Ley whispered in my ear.

"How will this be accomplished? The people must know the facts if they are to come to an intelligent decision."

"Through the television, the press and the periodicals. Through speakers who can present both sides to the people. At the end of three days we can receive their verdict."

"Don't accede," the old man begged.

"Wait," I said to him, shaking off his hand from my shoulder. "They are right. After all it is the people as a whole who are most concerned and it is up to them to decide. Remember we know little of the real feelings of the people. There are many millions who have not joined us in our uprising. We have had no way of knowing how they regard us. And even the poorest of the citizens must have his say in the decision."

"That is true, Master," Stele broke in. "The people must decide. But I have little doubt of their decision." And Mede and my other lieutenants voiced their agreement with the scarred giant.

I turned back to the Council.

"We agree. We will await the verdict of the people and abide by their decision. We meet here at sunset on the third day."

The Council departed in their blue flyers and for a moment we stood watching the great planes fade to specks in the sky. Old Jon Ley shook his head sadly.

"I am afraid, my lad, that all our efforts have gone for nothing. The Council wins the victory after all."

"Nonsense," I cried. "The people are ready for revolt. You have told me they have long awaited the Master, and we have removed from them the menace of the guards. They will support us, never fear. But right or wrong, I will be no tyrant ruling by force of arms alone. Our blow was struck for the masses and the masses shall decide."

"Well spoken," Jon Ley's face brightened but his brow still remained furrowed. "Yet I have many doubts. The Council, for all the decadence of their laws and the softness of their living, are very wise and shrewd. I am afraid their propaganda will prove more powerful than even those guns of yours. They have in their favor the deep inertia of the public and its apathy to sudden changes. They may not look with favor on your terms. Yet," and his voice was strengthened by a cheerful note, "there are many thousands who will support us. And the men who fought for us today will be loyal to the end. We will hope that you have decided for the best."

I thought the old man a prey to senile fears for, with the blind idealism of youth, I had boundless faith in the judgment of the common people, a faith that was shared by Stele and Mede and the others. But the next seventy-two hours proved how right he was—and how far from the truth our hopes had been.

During the early hours, our cause gained momentum as the news of our victory spread over the city. Riots of small dimensions broke out in the other cities and the few guards who were left of the Council's forces were busy keeping the peace. All work in Chicago was at a standstill and there were no guards in evidence. Our supporters went about among the people stating our plans and making converts to our cause. Over the radio stations that had turned over their programs to our speakers, we outlined the terms as we had given them to the Council and presented our expectations of the future.

Then the Council's efforts began to be felt. In the newspapers and periodicals

and over the television they pleaded their cause. They openly admitted their past mistakes and promised a rosy future in atonement. They would lessen the restrictions and the laws, while unpopular ones would be repealed. Higher wages, shorter hours and more freedom would be enjoyed by all. The Council would be enlarged to include elected representatives from the people.

And many were the doubts cast upon my leadership by their secret agents who mingled with the people in the homes and the smaller gatherings. How did anyone know that I was truly a man from the past? Might I not be a clever impostor who sought to gain control of the world? Would they be better off under the absolute control of one man than under the benevolent and paternal rule of a Council that included their own representatives? Surely the old order, with its promised new freedom, was better than an unknown and untried plan that would disorganize society and bring chaos.

SLOWLY the tide of public opinion swung toward the Council. Long before the allotted time was up, I knew that the old man had been right in his estimate of the power of the Council's propaganda. Yet I was not sorry. Forcing my rule on an unwilling or skeptical public would have been neither practical nor consistent with the ideals of liberty.

At sunset on the third day, we met the Council in the plaza. As we lighted from a plane, Duse, Ley, Leda and myself, we heard the sound of singing in the distance. Down one of the broad avenues between the towering pyramided buildings, came my army, chanting the song of the new day. At their head marched Stele and Mede, and beside them a man carrying a tattered flag nailed to a shaft of a spear. Then the riflemen led by Sale and after them the men with their spears led by Gore and Wolf. And bringing up the rear marched other men, women and children. A lump rose in my throat as they grouped themselves in one corner of the square. These people would be loyal, whatever happened.

The Council arrived, and a steady stream of people filled the plaza except for the open space in the center where we stood. I looked about the milling sea of faces, tightly massed and strangely silent. The leader of the Council advanced towards me, and his face was triumphant.

"The Hour of the Judgment has come," he said.

I nodded, saying nothing in reply.

He turned to the crowd and raised a hand for silence.

"Representatives of the people of Chicago, you have come here this day to render your decision. Shall you be ruled by the Master and his forces?" He broke off for a moment and from the corner where my forces stood came a shout, "The Master," and voices began the chant which was quickly hushed as he again raised his hand. "Or is it your wish," he continued, "to cling loyally to the Council?"

"The Council!"—it came in a great shout from the throats of the elected representatives of the blue clad followers. It was taken up by the masses and hurled back in a torrent of sound by millions of voices. "The Council! We choose the Council!"

He turned to me and spoke above the din of the shouting.

"You are satisfied?"

"The people have decided," I said, "and so be it. But do not forget that we are still the actual masters of the city. We shall not imperil your reign so long as you keep the promises that you have made them. But there is yet the question of my people."

The great crowd was dwindling, going back to take up their accustomed routine. But those who had brought about the revolution, who had kept alive the traditions of freedom and equality through the centuries of oppression, remained in a compact body waiting my word. A mad thought surged through my brain. It was not yet too late to grasp the reins of power. With our weapons we could destroy the Councilors, overawe the people and—But I stilled the thought and turned again to the leader who had been joined by other members of the Council.

"You realize," I said, "that we could yet

enforce our will upon you in spite of the judgment of the people? We have no wish to do that but there was to be an alternative."

"What is that?"

"We will go, leaving you in peace, to rule the five cities as you see fit. Do not forget, however, that we have taught the people the lesson of revolt against oppression. And see that you do not give them cause to repeat it with more disastrous results. Had we wished, red riot would have shaken the city to its foundations."

"But what are your demands?" he persisted.

"We and all those of the five cities who are loyal to us will depart to establish a new nation far from here. We are to go unmolested and you will supply us with planes to carry us and with materials, food, clothing, tools—all of the essentials for founding a new city. The secret of the guns will go with us."

They conferred together for a little time. At last the leader came over to where I stood with my friends.

"It is agreed. We will supply you with whatever you wish. When will you go?"

"In one week."

And seven days later, with Leda by my side, our plane led the great fleet of ships from the city. Fifteen thousand loyal men, their wives and families and all of their possessions followed us in great air liners. And behind them came huge transport planes carrying chemicals, machinery, tools and everything needed to establish a highly civilized community.

So we took off into the unknown, unexplored world, leaving the five cities and their teeming millions to stagnate as they would. In every heart and brain was the determination to establish a new, progressive nation where all men were equal and all men's efforts were bent on making their best contribution to the welfare of society.

The land of our goal was the re-born continent of Atlantis where, in the ancient cradle of civilization, we hoped to found our new republic.

THE END

What Is Your Science Knowledge?

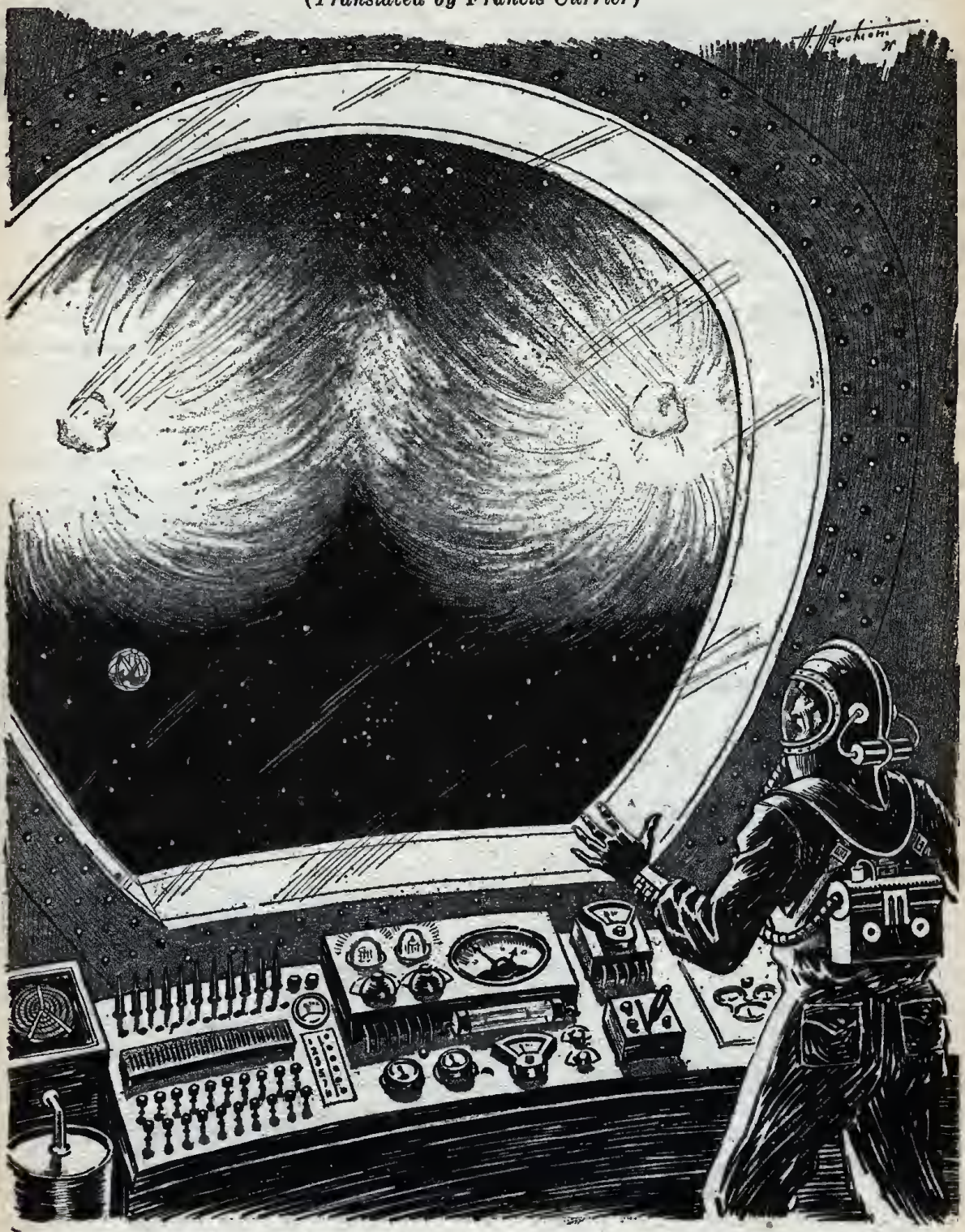
Test Yourself By This Questionnaire

1. Why is clothing a serious hindrance at the start of a space flight? (Page 256)
2. What material contains the qualities of lightness, hardness, and smoothness? (Page 257)
3. What speed is necessary on leaving the earth to finally escape from it? (Page 257)
4. What are the dangers in a space ship due to a hole in the shell? (Page 258)
5. In what part of the solar system are asteroids the thickest? (Page 218)
6. What general form do Hertzian waves take on leaving the sending station? (Page 226)
7. How far is Pluto from the sun? (Page 191)
8. What are the evidences of the volcanic origin of rocks? (Page 204)

A Daring Trip to Mars

By **Max Valier**

(Translated by Francis Currier)



(Illustration by Marchioni)

The minutes seemed like hours. The head of the comet became more and more invisible, more and more transparent the nearer it sped . . . .

FOREWORD

THE following narrative offers as entertainment an introduction to the highly interesting problems of the space flight. It is especially aimed at the reader who is not technically trained. The mathematical parts, however, are based on careful calculation. Of course, considerable time must still pass before we shall possess rocket ships so well constructed that we shall be able to venture a flight to a neighboring planet. The rocket ship will first have to stand its test on the earth. Yet it is well to keep the distant goal in sight, even if we are still just making a beginning toward it—MAX VALIER.

* * *

Tom Sacket, chief correspondent of the Sunday *Globe*, had pulled out his pad of paper like lightning. But in his hand, his pen trembled a little.

Accustomed as he was to recording the most hair-raising sensational reports in almost impossible positions, without the twitching of an eyelash, his calmness had deserted him this time. It was only with difficulty that he overcame his excitement. Nevertheless his words were filled with a warm emotion, such as one feels toward dear people who are still standing before one in the abounding freshness of life, but who are to depart the next moment, perhaps for ever.

"Have you actually considered everything?" he asked the engineer.

"This question is idle, my dear fellow. Even a person who intends to pay a visit to our old moon does not omit to think and plan. But the trip to the moon compared to ours is like a morning walk compared with crossing Africa barefoot."

"Then you intend to go further than—" Tom Sacket with staring eyes stopped in the middle of the sentence.

"Certainly!"

"Then you are not going to the moon at all!"

"Oh, yes, for we unfortunately have to use it as a filling station."

"Why, do you think that—?"

"We do not think anything; we know that on the moon there is to be found what we need in order to produce our fuel by means of solar power. There is ice, which we shall decompose electrolytically into its components, hydrogen and oxygen."

"I wonder whether everything will work out as you think."

"It must, for otherwise we cannot get back again!"

Tom Sacket let the pad sink a moment and looked at the floor. Then he pulled himself together and looked into the clear blue eyes of the engineer, who stood before him like a giant.

"I was going to ask you much more—but I cannot. Not now in this hour, in the space ship which will in a few minutes carry you so far away from our native planet. Whatever your destination may be, whether the red glowing star of the war god or shining Venus, I wish you from my heart the best of success. Good luck for starting and for landing!"

MAX VALIER was not only one of the most distinguished of the German rocket experimenters and enthusiasts, but also the first man to give his life to rocketry. His death in the summer of 1930, occurring by an explosion of an oxygen tank during a test, was a great blow to the rocket pioneers. But it is to be hoped that the example of Valier's enthusiasm and energy animates those who are carrying on where he left off.

The present story was written shortly before his death, and contains many of his ideas about the interplanetary journey which have never appeared in print in English. Valier's command of the interplanetary problem is evident throughout this realistic tale, and his ingenuity in mastering the difficulties of space flight is remarkable. We take great pleasure in presenting this story to our readers as a prophetic glimpse into the future by a courageous and inspired man.

"You have guessed our plan! That is a good omen. If your good wishes come true, we shall meet again in two years, when the earth has returned for the second time to that point in its orbit from which we are now starting. But now I must really ask you to leave the ship. We must get ready for the trip—we must undress ourselves and get into the spring hammocks.

"Oh yes, we have to travel nearly naked, for during the start even the lightest clothing is as heavy as sheet platinum. To be sure, all of us, the doctor, my wife and I, have been tested in the centrifugal machine for ten times the terrestrial gravity, but as far as possible we want to make the activity of heart and lungs easy."

"What, your wife is going with you?"

"Somebody must do the housekeeping, even in the rocket. That is not work for men. And then, who knows whether other planets are not perhaps inhabited? She would surely not want me to succumb to the enticements of the beautiful dwellers in other worlds."

MAX VALIER

In Space

"ARE you ready? We start in 80 seconds!"

Two voices answered in the affirmative.

"You already know the plans by heart. First, sixteen seconds with only 25 meters* acceleration, until we have gradually penetrated the dense air. Then the gas lever over to the middle point, until at 100,000 meters above sea level we have reached the velocity of 2000 meters a second, 100 seconds after starting. When we are in airless space, then full gas for all the exhausts, as much as the machine and our hearts will stand, so that we can get through the zone of the earth's gravitation.

"Yes, children, we must cover the distance to the moon at an extreme speed, in order to make up for the day lost by yesterday's delay. Otherwise we shall miss the connection with Mars, and all our painfully worked calculations would be in vain. Instead of taking 49 hours, we shall reach the moon in 19 hours.

"Hello! Still 40 seconds. Have you the hypodermic needles? Then use them without delay, so that the lobelia solution will have still 30 seconds to circulate thoroughly through the blood. And now breathe deeply and just think of one thing, not to stop breathing.—Still 10 seconds. Count with me. *Now!*"

A blast shook the air. A mighty train of fire shot like a comet up toward the vault of the night sky. And before the few favored ones, who knew about the ascent and were allowed to witness the start, were aware of it, the shining ship had vanished among the stars.

Silently the people went away, most of them slowly, as though the force of the ascent were weighing upon them. Only one had regained his mobility. This was Tom Sacket, who like a true acrobat of the pen was hastily writing his ideas on paper, regardless of the jouncing of the car, in order that he might wire them to his paper at midnight from the nearest telegraph station. He could not help thinking of the brave, charming, little woman, who, in order not to have her husband go alone, was risking all the dangers of space.

* * * *

At the same second that Sacket's car had to stop at a railroad crossing, the space ship at a height of 1600 kilometers above the surface of the earth had attained the unheard-of-velocity of 10,000 meters a second.* Now the screw of the automatic regulator pushed back the lever which controlled the flow of fuel to the rocket. This

*Acceleration of 81 feet per second, per second.

*About 6½ miles a second.

arrangement, regulating the calculated start automatically, at the same time permitting the hand of man to intervene in case of need, had stood the test. Thus every unnecessary motion, every lifting of the hand or moving of the arm, was avoided. And the apparatus did its duty. From second to second the acceleration decreased 0.5 of a meter, being now equivalent to six times the pull of the earth's gravitation, and thus the hearts as well as the entire bodies of the occupants adopted themselves gradually to the state of complete weightlessness, which followed.

The actual start had been successful, without any pressing in of the nose of the ship by air resistance or bulging of the walls due to friction or excessive heating of the ship. As a matter of fact, only such an excellent material as beryllium, which had very recently come into industrial use, could have satisfied these demands for lightness, hardness, and smoothness. Every gram of this rare metal however had cost a full mark.

All the data of importance regarding the start, the flight acceleration, the performance of the rocket, the consumption of fuel, the external and internal temperatures and pressures, were indicated by self-registering instruments. The desolation and emptiness of the long flight through space which was before the voyagers would afford opportunity enough to study and evaluate these curves.

"One of us may now sleep six hours," said the engineer, turning to his companions, without as yet rising from his hammock. "Two of us will always be on duty, twelve hours at a time. We cannot manage otherwise, for it is dangerous to leave one all alone, not alone for physical but also for psychical reasons.

"Who knows what effect the cosmic short-wave radiations may have upon the mind? Whoever finds it his turn to sleep will just stay in bed. The other two will dress and try to get around as well as possible with the aid of the iron-shod shoes, metal insertions in the clothing and the electromagnetic carpet on the floor, because here gravity has, for the time being, ceased to exist."

"We have noticed that," was the reply, as if from one mouth.

THE lot for sleeping fell to the doctor, the trusted assistant of the engineer. So Inge made herself ready and floated like an angel up to her husband (who had taken the pilot's place in the upper part of the ship). As yet she was not wearing the sandals with iron soles on her pretty feet. And she would have bumped her head against the ceiling of the room, if her husband had not caught her in time with two fingers, just as one catches a bit of down which is hovering in the air.

"I will connect the magnets, so that we can sit side by side, the way we are accustomed to do on earth."

"Yes, do it, Edmund, for with the best will in the world I cannot get used to being an angel living outside the limits of time and space. But it is fine, after all. It is as blissful as though we were falling in dreams from one world into worlds more and more beautiful."

"We are indeed falling, in fact at the enormous speed of about 10,000 meters a second at present, though to be sure falling upward. But this velocity will soon lessen, for the gigantic arm of terrestrial gravitation is still reaching out for us and drawing us back to the earth. But all the power of the earth cannot entirely destroy our tremendous speed."

For a while the two were silent. As yet not a quarter of an hour had passed since the moment of starting, but the time seemed to them like an eternity. This is a phenomenon which the passenger of the Lufthansa becomes acquainted with, when he soars over land and sea in a great trimotor plane. An hour in a plane seems longer than three hours in an express train.

Already the first shade of boredom was beginning to settle upon the couple, when Inge started up with a cry of surprise. Like a red glowing torch, a gigantic arc of light appeared at the edge of the black disc, which was the earth, which stood out

among the constellations, the arc increased every second in luminosity.

Finally the fiery red light changed into a rosy veil, which struggled with shadows edged in blue, and reached out like the jaws of pincers, until a full half-circle was filled. But at this moment there appeared so dazzling a light that Inge had to close her eyes, in order not to be blinded.

She did not venture to look out again until her husband had pushed the dark glasses over her eyes. Meanwhile the picture had changed quickly. As a clear, brightly illuminated crescent the earth stood in the window of the space ship, surrounded by an aureole of changing colored lights, the atmosphere gleaming in the brilliance of the sun.

In the other window there appeared at the same time the image of the bright silver moon, which was illuminated a little beyond its first quarter. With a flight of 19 hours projected it had unfortunately been impossible to make the start from the earth by day.

After all, it was necessary to direct the flight by the moon, which is most favorable for the start to Mars, when it is on the increase as seen from earth and 16½ degrees before its full illumination, because from that position an extremely favorable elliptical path leads to the red star of the war god in relatively short travelling time.

Thus it was unfortunately necessary to give up the real view of the sunny side of their native planet and content themselves with seeing the earth in the form of a huge crescent with an edge shading into twilight slowly moving in the constellations of the zodiac. From the decrease of the angular diameter of the earth, measured from the horns or ends of the crescent, the distance of the space ship from the center of the earth could at any time be secured, and by comparison of the measurements taken from time to time with the sextant, the velocity of flight could also be determined. The same measurements on the diameter of the moon served to check data on the approach of the ship to the earth's satellite.

At last twelve hours had passed since the start. At the first change of watches, after six hours, Inge had endeavored to serve as hostess, though not without some trouble in accustoming herself to the condition of weightlessness. To be sure, there was no need to worry about breaking dishes or glasses. If they were dropped, they remained floating freely in the air of the room and could only be held fast by the electromagnetic table top because of their iron inlays.

Unfortunately the magnetism could not be extended to the food and drink. The morsels had actually to be juggled, in order to get them to the mouth. On the other hand, drinking out of bottles with the aid of straws offered no special difficulties. Now, the second time, everything went much better. After that Inge withdrew, for the third watch fell to the two men, while the engineer had slept during the second one. For the landing maneuver on the moon at the nineteenth hour they were all to be at their posts, in full complement.

CHAPTER II

Nearing the Moon

"REALLY we have all been frivolous," concluded the engineer, when he had received the report of the previous watch. "We have not bothered at all about shooting stars and meteors but have allowed the Lord to watch out that none of these cosmic blocks of metal burn a hole in the covering of our ship. To be sure, we have rubber patches and fasteners at hand, to be able to close the leak as quick as lightning.

"But, to speak frankly, I do not think we should be able to get around to doing that, unless we were to sit here all the time in our space diving suits. For if the hole in the wall is of any size, then the air would escape from the room too quickly. Even the automatic ventilators will not be able to keep up the air pressure until the leak is mended, and anybody in the room where the catastrophe occurs will die. For his veins will burst, if the pressure sinks below one third of an atmosphere. Besides that there is the cooling of the gases to far be-

low zero on account of the rapid expansion."

"Fine prospects, those," replied the doctor, "is what people would say on the earth, if this was explained there for the first time. But we have considered all these things a hundred times already and have just accepted them."

"I do not see why we should not be able to get out of the way, since the ship obeys the steering gyroscope so well and the exhausts ignite in a fraction of a second," said Inge with energetic decision. She was already in her hammock.

"But my dear child, what is the use of all that? If we could see the approaching meteor in time, we could do something."

"Why can't we see it?"

"If we all three lay day and night at the telescopes, like setters out hunting, perhaps we could. But that cannot be done, and even if it could, all the meteors would escape us which were not in the limited field of vision of the telescopes. With the naked eye recognition of them is impossible. Further, remember that our highest velocity is 10,000 meters a second while meteors in crossing the orbit of the earth are known to possess velocities of 40,000 to 70,000 meters a second.

"One second before collision, meteor and ship are therefore still 50 to 80 kilometers apart. How is one then, even with a keen telescope, to perceive the body, which perhaps is only a few decimeters or centimeters in diameter, which neither glows nor shines in the cold airless space, apart from the tiny bit of sunlight it reflects!

"In fact, we can do nothing, madam, except trust in God. If chance or destiny wills it, we shall be struck, or we shall emerge uninjured from this cosmic drum fire, which doubtless, even now, is invisibly going on every hour and minute about us. In my opinion it is just the large meteors which we have to fear least, because they are the rarest.

"But it would be bad if we got into a thick swarm of very tiny meteoric bodies, as if into a sandstorm. Then certainly we would be lost, for these little particles would act on our ship like a sand blast and would grind off the outer skin as though on a grindstone, until the covering burst and the inner ship also was finally ruined.

"My greatest concern is whether the insulating stratum of ozone which is between the double walls of our cabin in order to check the deadly short-wave gamma rays of space, would prove effective. That too is quite aside from the powerful ultra-violet rays, which alone would completely burn up the body.

"The window panes, cast in Jena out of a specially designed glass, have certainly stood the test excellently, as well as the complete system for artificial renewal of air from Hanover." In satisfaction the engineer looked around the narrow but comfortable room, in which every single thing, however tiny, had its purpose and was absolutely necessary.

"Before I go to sleep now, don't you want to take a little walk outside the ship in the brand new space suits?" The doctor nodded affirmatively. Then a bell sounded.

"That is the signal that we have passed the limit of gravity between the earth and the moon. Now we have been *en route* 12 hours and 17 minutes. The time agrees tolerably well with the calculation. The velocity amounts to about 1400 meters a second, too much for the start of our fall to the moon. It will have to be braked considerably. I could start that right now, but to shorten the flight let us keep on to 1000 kilometers above the surface of the moon. Our four exhaust brakes will stop us all right even then."

IN fact, without that signal which was given by an ingenious selenium photoelectric televisor, as soon as the disk of the moon enlarged beyond a certain size on the projection surface, which corresponded to the previously calculated distance of the point free from gravitation, they would not have noticed at all that the ship had now passed from the sphere of influence of the earth into that of its satellite.

It is just in this point that previous novelists have made so many errors. The pressure of gravity does not gradually decrease between the start from the earth to the point

free from gravity, so that the occupants feel lighter and lighter from hour to hour, until they float about entirely weightless at the moment when the ship passes the limit of gravitation.

. On the contrary, all pressure ceases for them at that moment, a slight distance above the earth, when the rocket is shut off; it begins again only when the pilot sets the engines in operation in some direction of flight.

It is equally wrong to maintain that the ship, on passing the limit of gravitation, turns around of its own accord and now turns its bottom toward the moon so that in consequence the ideas of above and below are changed for the occupants.

Even the ideas of up and down have lost their significance for the occupants at only 1600 kilometers above the sea level coincident with the disappearance of the pressure of gravity. Neither the earth nor the moon is then above or below; they float the same as the ship in space, simply ahead or behind, to the right or the left.

The doctor had already opened the cupboard in which the space suits were stored. But the engineer shook his head and went on, turning to his wife, "Just sleep calmly, my child, we will remain here and turn around the ship, so that the exhaust end will be directed toward the moon. Then we will get out the large distance measurer, for we can no longer measure with the sextant when so close to the moon. I think you will have only about five hours sleep, for we are arriving rather earlier than the calculation indicated. But in this case it does no harm."

Inge switched off the light in her berth and drew over her head a light downy coverlet. To hasten the coming of sleep, she pressed a button which caused to flow toward her a slightly narcotizing gas, which the travellers through space called "sleeping gas". Of course the gas flowed only for an automatically regulated time, in order not to have a bad effect upon the respiration.

Meanwhile the two men set to work. Since there was nothing else to be feared, the doctor took the pilot's seat and started the gyroscope, whose rotation by the resulting momentum of revolution forced the entire hull of the ship to turn slowly in the opposite direction, until the bow pointed almost exactly toward the earth, while the exhaust end pointed to the moon. Meanwhile the engineer climbed down into the lower room, in order to convince himself about the condition of the tanks and their contents. The ship carried fuel in immense quantities, while the oxygen necessary for combustion was kept separate. The composition was still the secret of the inventor.

The total load of fuel was of such an amount that on being burned all in succession, in airless and weightless space, working only against the mass inertia of the ship itself, it could have imparted to the latter a final velocity of 16,000 meters a second. In technical language that is called the "ideal propulsion".

This measurement number is the most important of all, for it determines the radius of action of the space ship, since every specified trip in space, after careful calculation, expresses by this single number the ideal propulsion necessary for its accomplishment.

For Landing!

FOR the ascent from the earth, the ship had already used up about 13,000 meters a second of its propulsion possibility. Only 3000 meters a second were left for braking the fall toward the moon. This had to suffice to overcome the field of gravity of the moon, equivalent to 2400 meters a second, plus the power to brake the tremendous velocity with which the ship had just shot past the limit of gravity.

Regarding the amount of fuel still on hand the engineer was naturally informed beforehand, for an indicator which could be read from the pilot's seat showed at every moment the condition of the tanks. Likewise manometers and thermometers showed the pressures and internal temperatures in the different containers.

The engineer's one anxiety was concerned with the parts of the ship's motor which were necessarily exposed to the airless and cold interplanetary space, that is to say, the exhausts, the rocket explosion chambers,

and the vaporizers and spark plugs projecting into them. Without interference all these parts would have cooled off, when the rockets were shut off, nearly down to the temperature of space, that is, to below 250 degrees below zero (Centigrade).

There was danger that they would split, if the combustion chambers cracked at all, due to the sudden change in temperature. Failure here would mean certain death through the smashing of the ship, when it struck the surface of the moon with twice the speed of the shell of a cannon.

The walls of the exhausts, like all the metal parts of the ship involving high temperatures, requiring at the same time great smoothness and hardness, were made of beryllium. This metal had in addition to the favorable properties of duralumin also the advantages mentioned and besides that of a specific gravity one-third smaller. The actual walls of the chambers were made of quartz glass blown in one piece.

To protect all these delicate parts against extreme cooling, the engineer had made a very ingenious arrangement. The same system of coils which served for circulating the cooling material during the operation of the rockets now had passing through it some warming material preheated in a special boiler, so that the temperature of the endangered parts could not fall below a certain point. For this reason the rockets could not be shut off suddenly nor could full gas be given instantaneously.

Carefully the engineer tested every part of the machinery, the pumps, the valves, everything, down to the smallest screw. That this was no trifling task is known to anyone who has ever had to go over a twelve-cylinder airplane motor. What are called cylinders in that case were here twelve rocket chambers arranged in star form about the main axis of the ship, each of them opening out into an exhaust composed of seven hexagons, again arranged in a star shape.

Thus the hours in the engine room passed quickly for the man who in the pilot's seat, took observations on the approaching moon. He did this partly to fulfill his duty and partly also for his own pleasure, to pass the time. He used the great telescope which was built into the main axis of the ship, always pointing directly along the line of flight, and which gave an enlargement of 1000 times. Since the ship in the course of these hours had descended from about 30,000 kilometers to about 10,000 kilometers above the surface of the moon, he saw the landscapes below him in the telescope as clearly as though they appeared to the naked eye at heights ranging 30 to 10 kilometers.

By using the micrometer built into the tube to take angular measurements of the little crater of Triesnecker, whose diameter was well known from the measurements made by terrestrial observatories, and by using as a check the distance apart of two tiny craters between Triesnecker and Hyginus, he got by readings every five minutes, the exact distance of the ship from the moon. By calculation he also got the velocity at each time. This was now increasing every minute.

Quickly there passed the last hour, the eighteenth since the start from the earth. In the next thirty minutes everything was to be settled. Life or death! It all depended on whether the landing was successful or not. There was no third possibility. If there was the slightest failure, then there was not the remotest and dimmest hope of survival.

IN climbing up from the engine room the engineer had wakened his wife with a kiss and had then taken the pilot's seat, while the doctor took a place at the left. Inge floated up to the men and seated herself at the right of her husband. At first she was much astonished that she no longer saw the moon through the forward windows, for the doctor had imperceptibly turned the ship while she was asleep. Now the crescent of the earth appeared in the uppermost window of the dome, a splendid sight, about four times as large as the crescent of the new moon appears on earth.

The great telescope was no longer used for examining the moon. The smaller telescopes, enlarging twelve times, were sufficient for the purpose. Nearer and nearer came the satellite, but it no longer looked

as though the ship were falling upon it. It seemed as though the moon were floating forward like a golden iceberg on the invisible tide of the ether, a demon lying in wait for them. The approach of the globe, shining in the sunlight, had something pitiless and devastating about it.

"It is like a sea of glass blended with fire," said Inge softly to herself, without expecting a reply. "Like a monster with a hundred eyes on all sides, which is rising before the throne and about the throne of the infinite, as is written in the Apocalypse of St. John, the seer of Patmos."

With magic power the moon drew the glances of the men. They had to tear themselves away from the view of the horrible wilderness of its crater fields every few moments, to look at the indicators of the measuring instruments on the dashboard. Finally the engineer broke the silence.

"Children, it is getting time to prepare for landing. So be quick, my dear, and get into your hammock. Take off all the blankets and any superfluous clothing. We shall have to brake sharply, and this time the pressure will strike us like a bullet even if in the absolute sense it will not be quite as strong as at the start. On the other hand, for eighteen hours we have been unaccustomed to the normal terrestrial gravity, and even that would now seem an unusual burden."

As obediently as a child Inge withdrew to her berth and obeyed instructions. Likewise the men took off their clothing so far as was necessary. The engineer examined his muscles tentatively. Their development was due to diligent practice in gymnastics and carefully planned training in boxing.

"Now we must give the old moon the knock-out! This will not be so easy, because for landing on it there is no possibility of using the automatic regulator of the lever. It will be necessary to throw the gas lever by our own muscular force, and that after a lightning-like decision, as the emergency demands.

"This with the quadrupled pressure will demand at least as much expenditure of force as if one tried to hold up a hundred pounds in one hand. If only our nerve responses do not fail, Edmund! To be frank, at the start I was somewhat stupefied, and I was glad that the automatic device took care of the gas regulation so perfectly."

"Yes, it is no joke to speed toward such a wall of armor as the crater-pierced moon at a speed of 2000 meters a second. Remember that the speed with which the nerves conduct the visual stimulus to the brain and the command to the arm muscles amounts to hardly more than 15 meters a second. But now there is no more time to be lost."

"Do not forget the injection," called the doctor to Inge, while he inserted the hypodermic and the engineer did the same.

The latter allowed thirty seconds to elapse, in order to give the drug time to be imparted to the body. Then he asked briefly: "All ready?"

CHAPTER III

On the Moon!

THE distance from the moon had meanwhile lessened to about 1000 kilometers, while the velocity of fall was almost 3000 meters a second. Then the engineer reached out for the gas lever and pressed his foot on the starter.

At once there was a buzzing sound in the ship. The pumps began to operate and forced the liquid fuel into the vaporizers. Now a pressure on the lever switched on the ignition. At this moment an invisible veil seemed to be cast over the occupants. For an instant their brains seemed to cease functioning. It was the coming of the pressure, small though perceptible. The engineer was the first to recover himself.

"The transition from no gravity to a slight amount is always the worst, and the body will endure better the increasing of a sensation already present." Turning to Inge, he went, "Do not worry, my child, we are ourselves again, and I feel strong enough to strangle a lion."

Meanwhile the indicators of the measuring apparatus had begun to operate. They were attentively observed by the doctor, who had to see that the heating gas was removed at the right time and cooling mater-

ial provided instead, in proportion as the internal temperature of the quartz wall of the combustion chambers rose to a white heat.

"The chambers are warm," he reported. "Now you can give gas as you please, Edmund." The latter called back in a loud voice, so that Inge heard it above the hum of the motors:

"Pay attention! I am now braking in the first stage with a maximum of 40 meters a second* retardation, in order to reduce the fall toward the moon from 3000 meters a second to 600 meters a second, in exactly one minute. Now!"

If anybody could have seen the ship from the outside at this moment, he would have noticed that in a sudden flame it shot a brilliant train of fire toward the moon. This lasted exactly 60 seconds. Then the blaze disappeared, but it was replaced by the emerging from the ship, at a right angle to the axis, of a symmetrical tube, looking like the eyes of a snail, with spherical knobs on the ends, shining with lenses.

The engineer had put out the great distance-measurer, for the telescopes were no longer sufficient in this case, when it was a question of checking the plunge to the moon to a fine point. With both eyes at the instrument he could see the surface of the moon run like a speeding locomotive through the distance marks of the stereoscopically acting tube which were in the field of vision, and could calculate from the time between one mark and another the velocity at the moment. The doctor announced by way of checking the observations, "850 kilometers above the moon; velocity of 590 meters a second, as the result of the first stage of braking."

"That agrees approximately," replied the engineer. "The small difference from my reading is insignificant. The chief speed of fall is checked. Now I shall allow us to fall to 400 kilometers above the moon, during which our velocity will again increase a few meters a second, and then I'll brake in the second stage to 50 meters a second."

And so it happened. The exhausts did their duty. The distance measurer showed only 14 kilometers of height above the moon, when the maneuver was finished. Then the engineer turned to the doctor.

"Now we can take in the great distance measurer, so that it will not be injured on landing."

The latter quickly executed this.

Then the engineer for the third time threw in the lever and checked the ship 500 meters above the moon, so that it neither rose nor fell. From there he gently allowed it to float down and deposited it finally on the surface of the moon with a gentle impact.

"That was a master work, no less than that of the valiant man at Krupp's who made the head of the huge steam hammer come down so accurately on the emperor's gold watch without injuring it, that it could not be pulled out," was the praise of the doctor, while Inge rewarded her husband with a kiss.

HARDLY had the latter convinced himself that the ship was resting on solid ground, then he was already slipping into the space suit.

This was provided on a small scale with all the equipment of the cabin, i.e. with apparatus for artificial breathing, electric heating, insulation against radiation by means of a coating soaked in various preparations, and telephone wires for speaking across the airless space. Bowie knife, axe, hatchet, and spade, as well as the inevitable repeating pistol were of course provided, even though there was no expectation of hostile inhabitants. In a special carrier there were stowed scientific registering apparatus in such a way that they could at any moment come into action.

The doctor helped Inge into her diving helmet.

Then the two climbed in turn into the air-lock chamber and left the ship in the same manner as is done in submarines under water. Even though the diving equipment weighed a hundred pounds according to terrestrial weight, it was easy to endure with the gravity of the moon only a sixth as great.

The engineer had judged correctly for

*Deceleration of 135 feet per second, per second.

the ground on which the space ship had landed consisted of ice. Whether the entire surface of the moon was formed of the same substance, could not be determined from here.

"But that does not matter to us," he called into the telephone, by which he was connected with his wife and the doctor, who was remaining on board as a guard. "Here we have what we want. Now be quick, get out the solar power apparatus and send it down to us from the air-lock by the crane. We must utilize every hour."

The tanks of the space ship, which was built for an ideal propulsion power of 16,000 meters a second, had been almost entirely emptied by this excessively fast trip at a prodigious speed. The power of 13,000 meters a second had been consumed by the ascent from the earth to the weightless point, and the power of almost 3000 meters a second had gone to the braking maneuvers in landing on the moon.

Since a one-way direct flight from the earth to Mars on the chosen ellipse, would have required about 16,000 meters a second without taking account of any steering maneuvers, a trip to this planet with the given engine power would have been impossible. It was another matter, if the moon could be used as an intermediate station. Then the ship, starting from the moon for Mars, had only to overcome the moon's field of gravity, produce the excess of parabolic velocity at the moon's height in the earth's field and finally the acceleration for getting into the Kepler path to Mars. All of this amounted to an ideal propulsion of 9350 meters a second leaving, of the 16,000 meters a second available, the amount of 6650 for maneuvering on the trip to Mars.

A few hours later the little power station was in operation. A huge parabolic mirror built of light sheet silver collected the intense heat of the sun and first melted a small amount of ice in a closed container. The water thus formed—which cannot exist free on the airless moon—was heated to boiling, and provided the steam for a little turbine. This was connected with a generator of electric energy, whose current was used for the electrolytic dissociation of melted ice in special containers.

The entire system was of such dimensions that in four terrestrial days it would exactly fill the tanks of the ship with liquid hydrogen and oxygen in the right proportions.

The Second Lap

THEREFORE they had to remain this length of time on the moon, while the power plant operated automatically. Naturally the travellers used this time for making cosmic studies and for investigating the surface of the moon. It was sufficient for only one person to remain on guard in the ship at all times.

Substances directly serviceable or valuable were indeed not found on the moon, but the doctor, who had taken his degree in both medicine and chemistry, came on the trail of an important discovery. When the short-wave gamma radiations of space were concentrated in the shadow of the crater wall, where the sun did not reach, by directing a parabolic mirror toward the Milky Way, he found that the rate of decomposition of radioactive substances, of which a few samples had been taken along, was considerably accelerated and in fact regulated according to desire.

This experiment would never have succeeded on the earth, to whose surface there penetrates only the radiation filtered by the air. It indicated the initial step in the technically controlled demolition of atoms and the obtaining of the enormous energy latent in the breaking up of matter.

"Here we have the key to the real ship of the future," he explained impressively to Inge, who had followed his experiments with astonished eyes. "Our present rockets, which simply operate by the energy of detonating explosives, i. e. through the decomposition and rebuilding of molecules, are poor weak little machines, which can hardly accelerate us to the velocity of 42 kilometers a second which is necessary in order to leave the solar system. That feat will only be possible with ether ships which hurl the split-off electrons of crushed atoms

out of cathode tubes with almost the speed of light.

"Those tubes will take the place of our exhausts. Of course such ships can only set out from the airless moon, never from the air-wrapped earth. Therefore the explosion rockets will be used to get us to the moon. The ether ships themselves, with an easily endurable acceleration of only 20 meters a second a second will be able in the course of a half year to reach the velocity of light. At full speed such a ship would then cover the distance from the earth to the moon, which took us 19 hours, in less than 1½ hours, and to Neptune in 4½ hours. It would even offer the possibility of reaching the neighboring fixed stars, such as Alpha Centauri, Sirius, and Procyon, which according to current figures of astronomers are 4.2, 8.7, and 10 light years away from us."

Inge listened intently to these high-flown plans for the future. They were full of credulous confidence in the power of the human mind, which before her very eyes had just completed its mightiest feat by reaching the moon.

Thus the four days passed quickly, and the time came to dismount the power plant and to stow the parts again in the space ship.

"Now I will quickly try to fulfill your request, Inge," said the engineer, turning to his little wife, just as she was starting to hand the men their last breakfast on the moon. "You wanted so much to send a few farewell greeting to our old earth. It cannot be done by radio, for it is not even certain, on the one hand, whether the waves used by our terrestrial stations today are those necessary for wireless communication via space. And on the other hand the apparatus necessary would have been far too heavy to bring along. But the trick can be done by the solar mirror. Previously I could not put it at your disposal, until I was sure that the power plant would really fill our tanks in the calculated time."

Frau Inge filled the men's cups by pouring—a thing possible to travellers through space only during a stop at a heavenly body of sufficient force of attraction. The doctor took up the conversation.

"The mirror has done its work splendidly. Our tanks and all the reserve containers are filled to bursting. But now we have still six hours before the calculated moment of starting. We need three hours for taking apart and stowing away the machine, and so we have three for fulfilling Inge's wishes."

"I am childishly glad of that. But I by no means understand how you are actually going to do it, for after all the parabolic mirror collects the rays arriving parallel in its focal line. But here it is the same idea as with an automobile light, of sending a parallel pencil of rays into space in the opposite direction from a source of light."

"HOW cleverly you speak. As a matter of fact, we shall have to change the mirror, which was built for this beforehand, and stretch it out flat as a plane mirror. This can be done quickly by adjusting its framework. Then we will simply catch the sunlight with it and flash it, like a window on a mountainside on earth, to our native planet.

"On earth my friend, the Peissenberg astronomer is already on the watch for it. Before starting I gave him an exact description of our plans in a sealed letter and informed him that, if it were at all possible, we would signal five hours before our indicated starting time from the moon to Mars. The time is also favorable, because the mirror, thanks to its elevated position is in the sunlight, while the district for a great distance around is still buried in the pitch-black shadow of the crater walls.

"On the bright background of the moon our mirror-light could presumably not be seen from the earth, or its discovery would at least be very difficult. But in the pitch-black shadow the bright flash will very probably be recognizable. By swinging the mirror on its own axis, we can give at will long and short light signals and communicate in the Morse code."

An hour later all three were at work informing their friend on the earth of the results of the trip thus far and their future

prospects and intentions. They gave the signals in rapid succession, repeating each sentence for security. All this went smoothly, only it was uncertain whether the observer on the earth had clear weather for reception. On the other hand, it might well be assumed that he would have notified other observatories in case he had bad weather.

Finally the report was sent that at an exact time after leaving the moon, when the ship as viewed from the earth would be a certain number of degrees in a certain direction from the disk of the now nearly full moon and among the stars of a certain constellation, they would send Morse signals by switching on and off the cabin lights. This was more in the nature of an interesting experiment, for it was questionable whether this incomparably small gleam of light could be perceived even by the largest telescopes on the earth.

Then the men set to work, and soon the mirror was taken apart into its silver strips and rolled up, while the lattice work of its support was stowed away. With the crane the last heavy machine parts were hoisted on board, and the openings were carefully closed. The fuel feeds had already been changed and adapted for operation with liquid hydrogen and liquid oxygen, while on starting from the earth they had used the more convenient though somewhat weaker nitro-benzene, which unfortunately could not be replaced en route.

Meanwhile the moon, as viewed from the earth, had reached a position 16½ degrees before full. Accordingly, the tangent to its orbit cut the orbit of the earth at this angle, also, and if travelled on at the right speed would lead to an ellipse which would exactly meet the orbit of Mars with a travelling time of only 171 days, as compared with 260 days if the start had been made in an ellipse tangential to the earth's orbit.

The saving of 90 days could not be scorned, if one considered that the vital requirement in solid and liquid food and in air to breathe including the requisite chemicals for its production amounted to some eight kilograms per person per day. For just a one-way trip the saving in load for four persons would be 4½ tons.

CHAPTER IV

Coming Madness!

THE start had taken place smoothly, and the attempt to signal by means of the cabin light had been made. Whether this had been successful, it was not possible to determine. But now the ship was rushing through the fearful abyss of space at a velocity of about 9 kilometers a second relative to the earth, at 31.80 kilometers a second relative to the sun.

The moon shrank into a rapidly diminishing crescent, while the earth completely disappeared, because the ship was now exactly on its night side. This was indeed disturbing, but the doctor remarked that it was always more important to have the heavenly body to which they were going in full sunlight before them, than the one which they were leaving behind.

* * *

Fifteen weeks of the twenty-four which the trip was to last had already vanished into the insatiable maw of the past, without the occurrence of anything remarkable. The travellers had long since become accustomed to the condition of the weightlessness. It was much harder to put up with the unescapable boredom. In the long run nothing would help the three, already they were getting into an excitable mood.

They quarrelled, merely in order to quarrel and to prove to themselves that they were actually still alive and not lying in an eternal sleep. These mutual torments slowly took on a more threatening form. When the science fiction novelists have written about space flights and depicted a mutiny of the crew or something of that sort, they have shown something psychologically well founded. But among the engineer, the doctor, and Inge it went no farther than rudenesses, but rudeness which they would never have pardoned under terrestrial conditions. In the case of crews of baser stock there would actually have been mutinies and stabbings.

At length they longed intensely for a change. They felt themselves in prison, even more than if they had been in the

notorious Venetian lead chambers; and finally all their desire was directed at bursting the narrow walls of the ship. In an attack of such space madness the engineer had once come near beating with his fists on the switchboard of the levers and smashing the glass coverings of the delicate indicating apparatus.

It was only with difficulty that the doctor and Inge together were able to calm him, since his strength was not held in check by the limitations of terrestrial gravity.

On another occasion—contrary to the previously agreed on duty schedule—when both men were sleeping at the same time, with only Inge on guard at the controls, she was seized by an irresistible desire to move the gas lever, to ignite the rockets, and to commence a mad flight through space, without regard to the calculated course. She had already set the starter to work, when her husband, awakened by the humming of the pumps, sprang up and pulled her back just as she was going to throw the great gas lever forward.

* * *

The twentieth week was drawing to a close.

"If only something would happen!" screamed the engineer, striking the table with his fist. "I cannot stand this any longer!"

"The devil has bewitched our ship, just as he did to the three-master of the Flying Dutchman," replied the doctor.

"Aren't you two ashamed to talk that way? Perhaps good spirits are accompanying our rocket and keeping away the meteors which otherwise would have long since smashed it."

"Well, do you believe, my dear lady, first in spirits and then in the kind that catch meteors in cosmic butterfly nets, in order to keep us safe from these mosquitos of space? I don't."

The engineer stepped indifferently to the forward window. His attitude was not that of the responsible captain, for they had all long since forgotten all ship's discipline and no longer stuck to hours on duty with free intervals between.

OUT there Mars was shining, still looking like a star, though just as bright or even brighter than Venus appears to the eye of the dweller on earth, when it shines with its greatest brilliance as the evening star. It was still about seven million kilometers away, but the ship was catching up from behind at an excess speed of some four kilometers a second.

On more exact observation it could be recognized even with the naked eye as a tiny half illuminated disk. And with only an enlargement of 100 times in the telescope the image was clearer than with a 1000 time enlargement by observatories on the earth at the most favorable opposition of Mars.

Just for pleasure, the engineer was about to adjust the keen glass to Mars, when he noticed a tiny luminous point moving slightly in the field of vision of the telescope, a thing which was striking because it was just passing between two fixed stars located very close together.

"At last something interesting, children," he called over to the other two. "Come and look at the little star; I do not know whether I am seeing badly or whether the lenses are getting coated."

Inge looked through the glass, then the doctor. Both admitted that the body looked misty to them also.

"Then it is a comet," decided the engineer. "For to differentiate between comets and the little planets or asteroids today the orbit does not serve as an indication but the tail or misty covering does."

The doctor plunged into some books and suddenly developed a quite unsuspected zeal in working the slide rule. Then he reported, "This is not one of the known comets which are now en route and crossing our path, for none of them, seen from our present position, can be in this direction."

Meanwhile Inge and her husband were attentively watching the course of the new heavenly body, which was gradually increasing in size and luminosity and after a few hours attained the size of the full moon, though actually only as a washed out path of mist with a bright nucleus. At length, after the second hour following the dis-

covery, a sort of explosion seemed to occur on the comet. Suddenly a sheaf of luminous matter rose from the nucleus, at once curving into a fountain-like jet, which escaped into space in the direction away from the sun. Now the brilliance of the phenomenon increased unceasingly, and soon the comet surpassed Mars in total luminosity.

"Unfortunately the determination of the distance by the method of orbit calculation is not yet possible," explained the doctor. "We must wait a while, but I estimate that this thing is still a good 10 million kilometers behind the orbit of Mars, which it will cross at the parabolic speed of about 34 kilometers a second. So it is approaching us daily by about 3 million kilometers and will presumably cross the path of our space ship in four days, if it does not actually collide with us."

At this conclusion Inge shuddered. What they had all desired, the great cosmic event, had arrived, but now it was already filling them more with anxiety than with joy. The comet had however one good effect: the quarrels ceased, and the performance of duty was again rigidly adhered to.

On the third day, when Inge was sitting alone at the lookout post and had adjusted the telescope in order to get a better look, she was horrified when she turned the telescope to the comet. Now it stood among seven fixed stars, with its head up, from which gases streamed and curved around with the effect of parted hair, while the streams joined together farther below and the comet's tail hung down like a flowing beard. The nucleus had divided into two luminous centers, which glowed like fiery eyes. The whole thing looked like a threatening spirit blocking the way with angry glances.

Then Inge thought of the words of St. John, in the mystic Revelation, which is written in the first chapter, verses 13 to 16: "And in the midst of the seven candlesticks one like unto the Son of man . . . . his head and his hairs were white like wool . . . . and his eyes were as a flame of fire . . . . and he had in his right hand seven stars : and out of his mouth went a sharp two-edged sword : and his countenance was as the sun shineth in his strength."

Into the Mists!

AND as a matter of fact, the two-edged sword was not lacking. A spear-like jet of gas, short and dazzlingly bright, was just shooting out toward the sun, a thing the terrestrial astronomers call the formation of an abnormal comet's tail. As if that was not enough, the picture became still more frightful.

The normal emissions of gas from both nuclei were now being so evolved that they formed something like two horns above the head of the comet, while the two eyes moved farther part and took a lower position in the image of the head, leaving between them a relatively dark space open, which opened before the ship like the black jaws of a monster with wide apart, deeply basilisk eyes.

With a shriek Inge tottered back and would have fallen from the steersman's seat, if this had been at all possible in the condition of weightlessness. Then the two men sprang up and rushed to the levers and apparatus.

It was high time. The comet, whose distance from the ship could in no way be exactly determined, since the faint contours of the wanderer afforded no measurements, was nevertheless much nearer to the ship than the doctor had estimated, and now it was rushing straight at them. It now looked like a mad bull with the countenance of a dragon. Now everything was at stake!

"All clear to maneuver!" ordered the engineer. "Have the spare suits at hand. I think it will be better for us to put the suits right on, for on colliding with the comet—if it comes to that—a splinter of the monster can easily pierce the ship, and allow the air in the cabin to escape. If we have our suits on, absence of air cannot harm us, only if one is actually struck is he lost."

In order to reduce the probability of all being struck together, the engineer arranged that Inge should remain amidships in the cabin, the doctor should climb down

into the engine room, while he himself took the pilot's position in the conning tower. Then all the bulkheads in the ship were closed. The great distance measurer was again pushed out and took in the comet with its stereoscopic jaws.

From minute to minute the engineer read off the positions and called them through the wire to the doctor, who was down in the engine room trying as best he could to calculate the relative path of the comet to the ship. Soon it was evident that diverging to one side would have required such great acceleration that the machinery could not have produced it. This would also have demanded so much fuel that even in case of success the return to the earth would have been questionable.

There was nothing to be done but to accept the struggle and to try to pass between the two nuclei of the comet, right through the black jaws, when it was to be hoped that the slight mass of the cometary nuclei would not cause too much disturbance of their path and attract the ship into a disastrous course. The only things to be feared were direct hits by splinters, the friction of the comet gases on the walls of the ship, and sand blast effects on the skin of the ship. But there was no choice.

With his eyes fixed on the distant measurer, his hands on the levers, the engineer was like the record driver who knows that the dangerous S-curve is now coming, which determines life or death. A pressure of his foot set the starter in operation. And when the combustion chambers were warm, the hand on the lever gave a little gas. It was not necessary to turn the ship around, for here the adversary was to be attacked from in front.

The minutes seemed hours. The head of the comet, probably ten times as great in diameter as our earth, became more and more invisible, more and more transparent, the nearer it sped, for its gassy veil was being spread over an ever greater space in the sky.

"We will not notice at all when we are in it, Edmund," cried Inge through the telephone, when she noticed this. "If only the comet's nuclei were behind us!"

At this moment the needles of the external thermometers began to quiver and rise. Soon they mounted to 100, then to 200 degrees Centigrade.

"We are in the mists," said the doctor from the machine room, for he too could look ahead through a periscopic telescope.

The pointers rose to 300 degrees. Anxiously the engineer called into the telephone, "If that keeps on, the outer wall will soon be red hot. But we will stand it a while. The beryllium has a high melting point, and it will take at least ten minutes for the heat to be conducted through the insulating layer. Then there will really be danger that the tanks may explode."

"There, there, look!" screamed Inge. "The nuclei are rushing at us. The left one is nearer."

"LOOK out, I must give full gas," shouted back the engineer, to be heard above the humming. "Then we will make a sharp turn to the right. We must get through the middle, as closely as possible, and then we will have the fields of gravity of the nuclei balancing each other." Already the steering gyroscope was buzzing and was swinging the nose of the ship to the right. Five seconds later all the chambers were expelling their fearful sheaves of flame into space. But the people in the ship were panting and writhing in their heavy space suits.

Still the temperature at the outer wall kept rising and had passed 600 degrees, when the ship flew between the two nuclei at the speed of nearly 60 kilometers a second, for it had 25 itself and the comet was shooting in the other direction at about 35. The nuclei, some 20,000 kilometers apart, looked like swarms of arc lights, circling in a fog like flies.

Then there was a blow against the wall. The engineer at once called through the wire to Inge and his friend. Inge immediately replied, but the doctor's voice sounded hollow and weak.

"A break! One tank is running out. Two chambers are spitting. I, I am. . . . I am. . . ." Then the connection broke

off. Inge inquired, "Shall I try to help him?"

"Impossible now! Wait! Five minutes more!"

When two combustion chambers on one side gave out the rocket threatened to turn over, as sometimes occurs in the case of artillery shells. This the engineer could only avert by shutting off two chambers on the other side. Before this was properly managed, three minutes had passed. The outside temperatures were still rising, and there was the danger that the tanks would soon explode. There was only one way out to be tried: attempting to get out of the fog in the shortest way by cutting across the direction of the tail of the comet.

Quickly the engineer seized the wheel. His decision was reached. All would be settled in the next few seconds. Fuel?—The more used up now the better, for then the tanks would not explode so readily through heating.

Once more the man at the controls pushed the lever to its full extent and turned the steering wheel for the sharpest lateral turn. Almost unwillingly, the ship obeyed. The task, performed with superhuman muscular effort against the fearful pressure, was successful. The patches of mist became thinner, and soon the stars shone clearly from the depths of the heavens. The ship was saved, the utmost peril averted.

In the upper room everything was in order. The suits could be taken off, which Inge at once did, for she was already at the end of her strength. But the engineer, still in his helmet, crawled into the air-lock of the descending shaft and closed the upper cover before opening the lower one.

And that was well, for the air in the lower room of the ship had escaped. To be sure, that alone could not have hurt the doctor. And in fact the engineer found him in a corner wedged in between two duralumin braces which had bent somewhat. Otherwise he was all right and in good spirits. First the leak had to be made airtight, which was quickly done by means of the previously prepared plates and rubber inlays. Then the engineer filled the lower room of the ship again with fresh air from the reserve tanks. Then he once more climbed up to the upper room where Inge was, removed his helmet, got some tools out of the chest, and climbed down again, in order to free the doctor from his confinement, which he managed to do after some effort. A few minutes later the doctor was sitting, freed from his space suit, in the comfortable cabin in the usual light clothing which they wore in the ship.

"That was a narrow escape!" remarked the engineer.

"But it was after all a marvelous experience, which I should not have wanted to miss, now that I am safely past it."

"What are all the sensations on earth, which the millionaires chase after, compared with this struggle with a comet?" commented Inge and clung close to her husband, whom she looked at proudly.

"I did not worry about myself," added the doctor, "when I saw that I was merely wedged in. I even felt comfortable down there. It was simply unpleasant that communication with you was interrupted and that I did not know whether you were still alive and would come to liberate me."

CHAPTER V

The Return

BUT the adventure with the comet unfortunately had an unpleasant consequence. Part of the fuel had been exhausted, equivalent in propulsion power to at least 1300 meters a second. Then two combustion chambers were damaged and could not be repaired without the utmost difficulty, while two others on the opposite side could not be run, to maintain symmetrical propulsion. But all this did not matter too much—merely the maximum acceleration was reduced from 60 meters a second to about 40.

One could still attain any final velocity, only it would take somewhat longer and therefore consume more fuel. This was the disastrous feature of the otherwise successful escape from the collision with the comet. In passing between the nuclei of the comet and turning out of the tail 3000 met-

ers a second of propulsion power had been consumed. The remainder would just have sufficed to bring the velocity of the space ship, which theoretically was to amount to 20 kilometers a second on cutting the orbit of Mars, to the 24 kilometers a second possessed by Mars itself.

Now there was also the disturbance of their course because of their detour, which would have to be corrected again. Thus, hard as it was, they had to give up the idea of visiting Mars this time and landing on it, and simply to pass by it at a distance of 500,000 kilometers.

"At the same time we have fortune in our misfortune, and not a little of it," explained the engineer, when he looked up again from his calculations for the first time in two hours. "The comet has cast us exactly into a course that when crossing the earth's orbit we shall meet the earth itself. And in fact we shall reach it from behind at an angle of only about two degrees, a favorable state of affairs, because then we shall approach with a difference in velocity of only about four kilometers a second.

"To be sure, its gravitation will impart to us a free fall velocity of 11,100 meters a second, by the time we enter the atmosphere. But if we succeed, at the last moment, in gliding tangentially to the earth, so that the top of the hyperbola in which we arrive is some 170 to 200 kilometers above sea level, in thin strata of air which will allow braking, then we can undertake the actual landing as though we had simply returned from a flight to the moon with a perfectly intact ship."

The doctor rose and shook his friend's hand. "Fellow, if you do that whole thing just as well as you did the landing on the moon, then you deserve to be given the 'Order of Comets of the First Class'."

Inge laughingly agreed.

* * *

Of course there was no longer a possibility of a visit to the planet Venus, which had originally been planned on the return trip from Mars. It had been calculated originally however, that such a visit would require neither the time for a considerable detour nor much expenditure of fuel.

They had passed Mars only in a wide arc and at this distance had not been able to solve its mystery. There seemed to be only one result of the observations, namely that the colors which Mars shows in the telescopes of terrestrial observatories do not belong to the ground itself as much as they are the result of absorptions in the Martian atmosphere.

"Probably the white places are the highest cloudlike formations, the greenish grey the ones in the middle, and the brick-red ones the lowest. These last are perhaps really white or grey, but since only the reddish yellow sunlight penetrates so far down, because the Martian air does not admit the other rays, only these can be reflected again."

This was the doctor's opinion. But he in no way insisted on this novel theory and was frank in admitting its uncertainty.

Two hundred and sixty days after the second cutting of the orbit of Mars, on the inward side, the space ship was again nearing the earth. It was high time indeed, for now the supplies of air and food were gradually running low.

Since there was no longer need of the machinery of the little power plant which had rendered such good service on the moon, they just threw them overboard, as they formerly had thrown all used up things and refuse out into space. Thanks to the force of ejection, they had soon gone out of sight of the ship.

THEY also resolved to abandon the great silver mirror, though not without first trying to send Morse signals to the earth with it, to tell of their impending arrival. This was done from a distance of 800,000 kilometers, the mirror being stretched out in space beside the ship.

"We must free the ship of every possible kilogram of needless weight," insisted the engineer in the decisive conference, in which they took counsel regarding the landing maneuvers. "Our supply of fuel is so scanty that it is just enough for the necessary braking of our tremendous speed, for otherwise we should run into the earth from

behind, like a racing auto into a load of hay.

"It really would not hurt the earth. 'See there, a splendid meteor!' the people would perhaps shout, when our ship in its steep course shot into the atmosphere and then of course burned up because of the enormous friction, if the pressure had not already crushed us to death."

Toward the end of the next watch, when the engineer was sleeping, to get some rest for the last time before the landing maneuvers, Inge, who was the lookout, noticed that at the place on the night side of the earth where Berlin was located a dim dot of light kept flashing and disappearing. She called the doctor, who was at the controls. He did not look through the telescope long before he said, "Those are Morse signals. They are flashing something to us. Note the long and short signals carefully."

And that is actually what it was. Berlin was signalling. "We have observed and understood your light signals with the great plane mirror. We have united 400 searchlights on the Tempelhof field, pointed them toward you, and are now giving signals by simultaneously switching on and off all these million-candlepower searchlights. As soon as we go out of sight, another metropolis which is favorably located will begin. We are flashing this message every half bour, until you give us a signal that you have understood. Then we will communicate directly back and forth."

This was too important to pass over. Inge awakened her husband, whose time for sleep was nearly finished. With quick decision he directed the three little searchlights, which the ship still had after the loss of the great mirror, toward the earth and switched on the current . Even though they had to be sparing of light, there was enough for a few minutes.

And then he sent the reply to the earth. In less than five minutes there came from Paris, which in the meanwhile had also entered the night side of the earth, the first signal that they had been understood. Since clouds were forming over Berlin, which made the sending of other signals impossible, Berlin had its greeting to the space ship transmitted by London.

The engineer flashed back, "In less than three hours we shall land in the Atlantic Ocean at about the latitude of 45 to 50 degrees. Notify all ships by radio, since it is possible that at the last moment something will prevent a good landing, especially as the machinery is damaged and the fuel very low. We still have air to breathe, our diving suits in order, parachutes ready, and everybody on board all right." With that he ended his message.

For the last time the bold travellers of space made ready for landing. Each had put on his space suit and his own parachute. Then the engineer stepped on the starter.

The rockets began to work as before, only four of them were still shut off. The steering gyroscope hummed and turned the exhaust end of the ship toward the earth. Now the engineer gave it the gas. Again streams of fire spat from the exhausts. The course was reduced from a hyperbolic to a parabolic and finally to an elliptic. This was nothing new, so long as one was still outside the atmosphere. But when the ship had already reached the height of 400 kilometers above sea level, and shot toward the earth in a very much flattened tangential ellipse, the first signs of air resistance made themselves evident, 160 kilometers up, for the nose of the ship grew perceptibly warmer.

"We must put out the braking disks, doctor!" called the engineer.

As viewed from the outside, there now came from the nose of the ship (which was pointed backward) a cable, on which there were arranged at certain distances thin metal disks, which were bent somewhat backward like cones, the result looking like the familiar tufts on the tail of a child's toy kite. One after another these disks glowed brightly and were worn away and burned by air resistance and the resulting heat, along with their cable, which burned like a candle wick.

But new disks kept coming out on more cable. In this way it was possible to convert the tremendous force latent in the mo-

tion of the ship into air whirls and heat in a gradual fashion, and by sacrificing the metal disks the ship itself was saved from burning. Besides this, the ship was working the exhausts in the reverse direction, as long as the fuel held out.

Finally the so-called orbital velocity of 7800 meters a second was passed in their retarding, and thus the danger was eliminated that they would again be lost in space. The effect was that of a bicycle wheel which gradually loses its impetus against the pavement of the street, when the cyclist has ceased to pedal. Thus the horizontal velocity decreased more and more, at last very quickly, too quickly!

If the ship had possessed extensible wings, like those of an airplane, a glide landing would have been possible. If there had been sufficient fuel, the engineer could have let it shoot down toward the sea in a vertical plunge, finally checking it much more easily and surely than on the airless moon. But neither of the two possibilities existed here. The ship was in any event lost. Perhaps the occupants could be saved.

The engineer called a last command through the wire. Then Inge and the doctor came to him into the actual control room, each still provided with a special parachute. Then by pressing a spring he closed the entrance and by another lever made the nose of the ship open up. At the same moment the strong counter-current of air pulled out the great parachute and with it the control chamber, which now proved to be a 'life-buoy'. The ship itself dived down.

The great parachute indeed moderated the descent from several thousand to a few hundred meters a second, but in the long run it was unequal to the evolution of heat and caught fire. Now there was only one recourse for rescue, to burst the chamber and jump out to seek safety, each on his own little parachute. This too was all ready, and a second later the three people were floating down to the earth on white parachutes, which stood out against the sky like shrapnel clouds. This time the ropes held and the parachutes proved adequate, until the sea received the bold travellers of space and rocked them on its waves until a swift seaplane arrived to take them aboard.

The slender sinewy man who was the first to leap into the water, who swam to Inge and aided her to unscrew the diving helmet, was none other than Tom Sacket, chief correspondent of the Globe. Five seconds later, there in his bathing suit, he had already got out his pad of paper and begun the interview. And in ten more minutes the radio of the hydroplane, now soaring up with roaring motors, was sending the first news to his paper.

THE END.

The Time Projector

(*Continued from Page* 189)

thunderbolt. Copies of it were waved about in the national congress as a sign that the world was going to the dogs. A delegation of business men visited Carol and threatened to withdraw all advertising support from his paper. He received hundreds of letters of praise and threats—some letters barely legible, others indicating that the sender was a person of wealth and culture. A plot to bomb his building was discovered, on the day that Booth again began the aggressive broadcast of the cloud pictures.

Through two days of stormy debate in the national congress the bill was the subject of all attention and even the cloud pictures were forgotten momentarily. And on the day that the bill passed and the President signed it, twenty-five congressmen picked up their hats and walked from the halls, they said, "never to return," leaving their former colleagues with an uneasy foreboding silence.

That night there was rioting in a dozen American cities, in South America and in European nations where bills similar to the American act were before the national congresses. The morning papers reported in America alone, three hundred men and women arrested and imprisoned under the new "Defense of Property Act." Mobs storm-

ed the streets, to be dispersed by the massed onslaughts of the police, who were acting under orders to "break up all crowds."

It became evident, however, that there was a reluctance of authorities to make general arrests, the leaders of the radicals only being the first victims.

As he read the reports flashing over the ether and the wires from various parts of the world, and he flashed his televisor from city to city, Carol became sick at heart. He saw only bloodshed, rioting, distress everywhere. All the primeval forces in man seemed to be breaking out, at some signal, against the carefully built up restraints of civilization. Even the leaders, business and political, seemed to be losing their heads and giving wild statements to frantic and greedy newspapers.

In desperation, Carol left his office and returned to his home. In the closet of his father's room, he signalled for Booth and soon had a connection with the man.

Booth noticed Carol's drawn face. "Are you working too hard, Carol?"

"It's not that," Carol blurted out. "But we must do something. The world is going to smash."

Booth nodded sadly. "I saw it all, but what can we do?"

"Must you go on?" Carol asked desperately.

"Have you forgotten," Booth asked gently. "Have you forgotten the picture I gave you of what faces man twenty years hence? Do you want to expose your world to that terrible war and its aftermath?"

Carol groaned. "Yes, you're right, but we must do something."

Booth nodded. "We'll try. But get away from your office for a few days. You are worn out. I want you to come here. There are some things I must show you."

Carol looked intently at the screened image of the man before him. He could look at Booth dispassionately now. Was the man really sincere in this game, did he have the welfare of the world really at heart? No, he could not question Booth. The drawn lines of Booth's face, showed that the man was suffering too.

"I'll come tomorrow," Carol said, "Goodbye". The image faded from the screen.

For the rest of the day, Carol remained at home trying at frequent intervals to get Joan on the telephone. But despite the invariable replies that she was "not at home" Carol persisted. At ten o'clock that evening he gave it up and retired to an uneasy sleep.

It was early the next morning, accompanied by Pimpkins that Carol rose into the air from the field in back of his home, to begin the journey to Booth's cave, the same journey that he had taken as an innocent youth a month before.

CAROL looked forward with an eagerness mixed with dread to this meeting with Booth. He began to doubt seriously his ability to carry on this gigantic program, with his own world alienated against him, Joan estranged and this terrible secret of the Time Projector weighing on him.

He saw himself trapped between two desires, equally strong. They could not be reconciled, yet he could not choose between them.

"The scenery is beautiful along here," Pimpkins ventured as they swung above the New Jersey flatlands.

Carol did not answer.

"The housekeeper tells me, that the help is beginning to be alarmed at the house, sir," he went on.

"Alarmed?" Carol asked.

"Yes, sir. There's been so many strange people seen around. You know she asked you to have guards about the place, sir."

Carol did remember. He had laughed off the old woman's fears. But perhaps she was not wrong. Besides he had no right to expose his help to possible injury.

"I'll have it done, when we return, Peter," Carol said, and relapsed into silence.

It was not until they had almost reached the bald mountain top that Carol began to feel the load of anxiety wearing from him. Now that he was approaching Booth's physical presence, a new wave of optimism filled him.

With the televisor broadcaster on, he circled over the mountain and watched as the

bald top parted into halves and rolled back to expose again the little encampment. Setting the helicopters, Carol slid the machine gradually earthward. Below him he could see, as not more than dots, two figures moving from a building.

Swiftly the machine descended and finally came to a landing within the stone walls. Booth reached the machine as Carol leaped out. They shook hands warmly.

"Welcome, Carol," Booth said. "I'm glad to have you here again." Carol noticed a slight twinkle in his serious eyes.

Carol turned to Peter and pointed to the two large rear compartments of the fuselage. "Will you take my things Peter?"

As Peter moved toward the rear of the plane, Booth stopped him.

"Wait," he said. He walked toward the tail of the plane, opened the end compartment and looked in.

"You may come out now," he said gravely addressing the opened space.

As the others watched in amazement, there was a slight movement in a pile of waterproof sail that covered the top of the compartment, and an arm reached out and moved about helplessly as though to grasp some unseen support. It was a white arm, round and soft looking. Booth climbed to the compartment level and pulled back the sailing. A head lifted from within and the face of Joan Blake, dirty and dispirited, faced the three men.

Carol sprang to her side. "Joan!"

"Don't touch me!" she screamed. Then she looked about in amazement at the stone walls, the white low buildings, and at the sky being shut out by the slowly closing cavern roof.

"Where am I?" she asked dazed, as she looked from one to the other of the men.

"Only at the retreat of an old man," Booth said gently. "May I help you down?"

She looked at him for a moment, and Carol saw a silent fire of conversation between them, questioning, cross questioning each other. Joan's face softened and she gave Booth her hand. Soon she was standing on the cavern floor with Carol beside her.

"Joan, this is a pleasure," he said laughing. "I'm honored."

Joan shrank away. She semed ready to burst into tears. "This is no pleasure trip. I am spying on you."

"Spying!" Carol's face hardened.

Booth interrupted. "Miss Blake is probably not serious, Carol. Come we mustn't talk about it." Then to Joan. "Will you allow me to escort you to some quarters?"

Joan nodded coldly, and with Booth at her side, and a dazed Carol following accompanied by Peter and George, they moved off to the buildings.

When Carol had been installed in his room, he lost no time in searching out Booth in the latter's quarters.

"You knew that Joan was hiding in the plane?" he asked somewhat belligerently. He felt that Booth may have introduced Joan into the secret without his knowledge.

"Yes," Booth answered. "I felt it necessary now that you were becoming the object of so much controversy to watch over you. By the televisor I saw Miss Blake steal into your plane early this morning."

"Then you had nothing to do with it?" Carol asked incredulously.

"Nothing," Booth answered. "But perhaps the young lady will explain. Her father is William Blake?"

Carol nodded. He had already explained to Booth, over their private communication, the threat of discovery from Blake. Booth had merely stated that he "was ready" for Blake.

"You understand," Booth said gently. "That Miss Blake must remain here?"

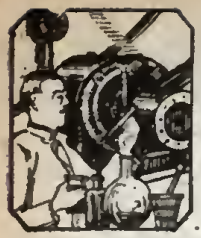
Carol started. "Yes," he admitted. "I suppose you are right. But couldn't she promise . . . "

"Would you subject her to that?" Booth asked, "it would be quite a strain for her to face her father daily knowing what she did about us . . . "

"Do as you see fit," Carol sighed, "But treat her well . . . "

"Need you ask me," Booth answered at once. And with that Carol left him to seek out the explanation from Joan that was torturing him with doubt.

(To be continued)



Science Questions and Answers

THIS department is conducted for the benefit of readers who have pertinent queries on modern scientific facts. As space is limited we cannot undertake to answer more than three questions for each letter. The flood of correspondence received makes it impractical, also, to print answers as soon as we receive questions. However, questions of general interest will receive careful attention.

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Positions of the Planets

Editor, Questions and Answers:

Where are the planets seen, I mean in what part of the sky, and in what months are they visible? I would appreciate it if you would make some sort of a table, stating these facts.

Stephen Roberts,
162 Lanrel Street,
Manchester, N. H.

(The planets, as their name indicates (from the Greek planetes, wanderer) move about continually against the background of fixed stars; but they are always in a belt called the Zodiac, which is eight degrees each way, north and south, from the Ecliptic, or apparent path of the sun among the stars. The sun and moon were in ancient days, because of their motions in the sky, reckoned as two of the "seven planets"; the others being Mercury, Venus, Mars, Jupiter and Saturn. In modern astronomy the sun and moon are no longer considered planets; but the number has been increased by adding not only the earth but Uranus, Neptune, Pluto, and the asteroids, whih exceed a thousand in number.

In order to locate the planets, it is desirable to have a star map, showing the constellations of the Zodiac, which serve as frames of reference. Jupiter and Venus may often, however, be recognized by their brilliancy, which at its greatest far exceeds that of any fixed star. Mars and Saturn are less distinctive; Mercury, though brilliant, is seldom seen in northern latitudes, because of his nearness to the sun. A keen eye might detect Uranus, or the asteroid Ceres, if the exact position were indicated; but the others are always invisible without the aid of telescopes.

At the beginning of May, 1931, the planets are placed as follows: Mercury is almost directly between the sun and the earth, and therefore invisible. He will reappear as a morning star, reaching great brilliancy three weeks after the conjunction, but, as said above, will be very hard to find. The astronomer Copernicus is said to have died lamenting that during his long life he had never seen Mercury; he had not, however, a telescope.

Venus is in the midst of the constellation Pisces, and will rise in the morning, about two hours before the sun on May 1. It is impossible to mistake Venus, which is the brightest object in the night sky; and which can even be seen in daylight, if the observer looks in the right place.

Jupiter, on the other hand, is brighter than any stars, Mars will be easier to identify; he will set about ning. He is in the constellation Gemini, which may be identified by its two bright stars, the Twins, which are fairly close together, northeast of Orion. Jupiter moves at the rate of only one sign of the Zodiac a year.

Mars, also an evening star, is much less brilliant. He is at present in the constellation Cancer, moving east. As this constellation has no first-magnitude stars, Mars will be easier to identify; he will set about midnight, much later than Jupiter.

Saturn is at present a morning star in the southern constellation Sagittarius, rising not long after midnight. He is of about the same brightness as Mars, but less red. Since Saturn takes thirty years to circle the sun, his change of place is comparatively small from year to year.

Uranus, which passed behind the sun on April 2, is in Pisces, not far from Venus; Neptune is in the constellation Leo, in the eastern sky in the early evening; but these two will not be observable.

The outer or "superior" planets Saturn and Jupiter are comparatively regular in their progress, though they apparently swing back and forth each year. This effect, due to the more rapid motion of the earth in its orbit, is what might be called an exaggerated parallax effect. The movement of Mars is much more irregular, because he is extremely close to the earth, in comparison.

The inner or "inferior" planets circle the sun more rapidly than the earth, Mercury making more than four revolutions during one of our years. They move so fast that a lengthy table is necessary to indicate their exact positions from time to time. However, information will be found, usually, in any almanac, which will serve as a guide. To identify the outer planets, it is necessary to know the brighter stars of the Zodiac, with which they might otherwise be confused.—Editor)

A Correction

In one of your issues of *WONDER STORIES*, in the "Science Questions and Answers Department," one of your readers asked the difference in construction of the infra-red and ultra-violet type of lamps. The mercury tungsten arc lamp was described in full detail, without giving credit or mentioning the name of the manufacturer of this type of ultra-violet source.

This type of (S1) sunlamp incidently was discovered and perfected at the labs of the General Electric Vapor Lamp Co. and is being manufactured by the General Electric Co. and the Westinghouse Electric Co.

These units as bought by the public consist of an envelope of Corex-D glass which permits the radiation of wavelengths as low as 2800 angstrom units, which is well in the erythema producing region, yet above the conjunctivitis region, thus eliminating the necessity of goggles in using the lamp.

This little correction in one of your future magazines will be duly appreciated.

P. Rosenblatt,
Eng. Dept.,
General Electric Vapor Lamp Co.
Hoboken, N. J.

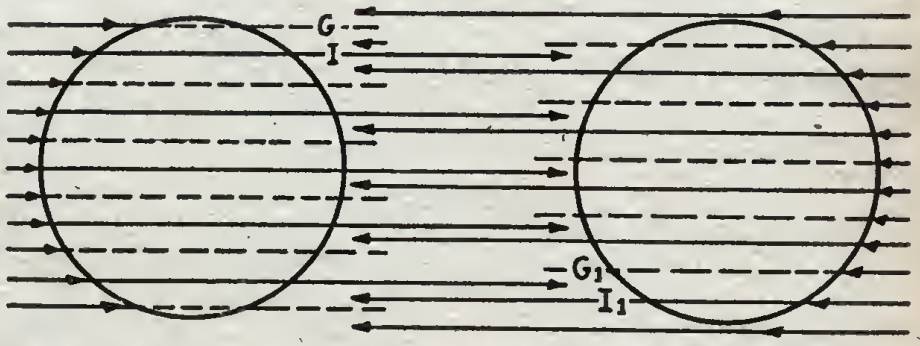
The Dynamic Universe

Editor, Science Questions and Answers:

In the June issue, you mention a theory of James Mackaye as an explanation of the phenomena of gravitation, based upon pressure-producing radiations.

It sounds very interesting and I wonder if you would explain it more thoroughly by means of a diagram.

Willard Hunt,
St. Louis, Mo.



Showing how in Mackaye's theory gravitation operates. All space is filled with the pressure-producing I radiations, some of which become pressureless G radiations in passing through any body. Thus, between every pair of bodies, there is an area of lessened pressure which tends to force them together.

(Referring to page 131 of the June issue, we mentioned that James Mackaye in his book, "The Dynamic Universe" (Scribners) built up a case for what he called his dynamic theory of gravitation. His theme was that all space is filled with radiations, called the ether perhaps, which penetrate all bodies. When the radiations, however, pass through material bodies such as planets, stars, etc., some of the radiations change their nature and lose part of their pressure-producing power. When they emerge from a material body then they are pressureless. In between two bodies therefore there is an area composed partly of pressureless radiations, a sort of partial pressure vacuum. Thus by the superior force of the pressure (see the illustration herewith) on the far side of the bodies, they are drawn toward each other. While this theory can stand serious questioning, it is supported by numberless proofs offered by the author. It is helpful even though it may be eventually disproved, as opening a new line of questioning of one of the most important and least understood phenomena of the cosmos.—Editor)

Speedy Rocket Ships

Editor, Science Questions and Answers:

Once outside of the atmosphere would it be possible for a rocket ship to attain a speed of 186,000 miles per second, the speed of light?

Ed Morrison,
3914 N. W. Monroe St.,
Chicago, Ill.

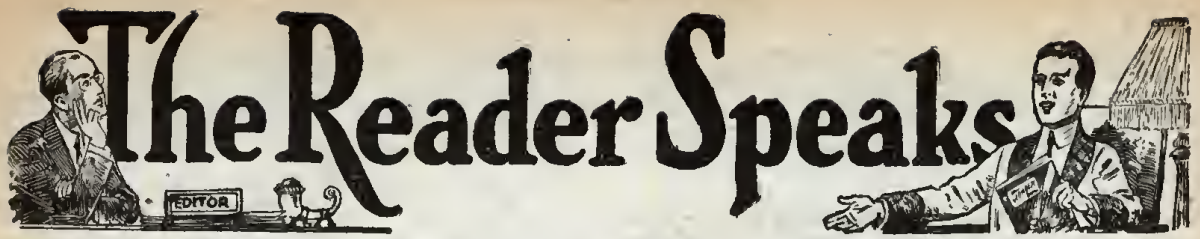
(Theoretically, and taken most generally there is no reason why a speed of that of light could not be attained. Practically, however, the problem presents different aspects.

In the first place, the acceleration of a ship starting from rest, is limited by what the occupants can stand. Let us assume that this limiting acceleration is five times that of gravity, or 160 feet per second, each second. To reach a speed of 186,000 miles per second at that rate of acceleration would take approximately sixty days. Now, this does not mean simply that the ship must be moving for sixty days, it means that every second of that sixty days the ship's speed must be continually increased by 160 feet per second. It is questionable whether this acceleration could be borne by men for 60 minutes not to say sixty days. If the acceleration is only 80 feet per second per second it would take 120 days to reach the required speed.

The second problem is that of power. A space ship traveling away from the earth would normally use its power only eight minutes and then it would be exhausted. And under the most favorable conditions, the resulting speed would be 7 miles per second. But the ship our correspondent has in mind must use its power continually for either 60 or 120 days as the case may be. For power is needed, even in space away from all gravitation, to accelerate the ship's speed. The amount of power required therefore would be simply stupendous.

The third question is that raised by the Einstein theory. According to Einstein, the inertial mass of a body increases with its speed. And the inertial mass is exactly that which requires power to speed up the body. Now as the speed arrives let us say, at 10,000 miles per second the inertial mass becomes larger perceptibly, and the power required to accelerate the ship becomes greater and greater each second. Finally as the speed approaches that of light, the inertial mass approaches infinity and the power required to speed it up approaches infinity.

In "A Daring Trip to Mars" by the late Max Valier, in this issue, the author discusses how this feat might be attained by the use of atomic energy.—Editor)



IN this department we shall publieh every month your opinions. After all, this is your magazine and it is edited for you. If we fall down on the choice of our stories, or if the editorial board slips up occasionally, it is up to you to voice your opinion. It makes no difference whether your letter is complimentary, critical, or whether it contains a good old-fashioned brick bat. All are equally welcome. All of your letters, as much as space will allow, will be published here for the benefit of all. Due to the large influx of mail, no communications to this department are answered individually unless 25c in stamps to cover time and poetage is remitted.

Utopia and the World Fair

Editor, WONDER STORIES:

Although I have heen a constantly pleased and fully satisfied reader of *WONDER STORIES* ever since it was first published, I haven't yet taken the opportunity to express my opinion of "our" magazine, until now. The whole, simple cause of my finally writing this letter is that super-excellent, most delightful, and entirely "different" masterpiece, "Utopis Island".

This truly "Utopian" tale will naturally receive many words of praise and thanks from other readers, but it can never be over-praised, for the author, Otfrid von Hanstein, has so splendidly, carefully, and realistically written the tale that the reader actually feels himself an elated member snd participant in the entire story. Truly an extraordinary and "Utopian" masterpiece! And then there's the announcement of another marvelous tsle, "A Daring Trip to Mars," by Max Valier! This will be another maeterpiece, I'm sure.

While reading of the "Sport Festival" in "Utopia Island," I had a rather strange idea: Wouldn't it be wonderful if some of the astounding inventions used in the festival on Santa Scientia could be developed for the coming World's Fair in Chicago? Wouldn't the rest of the world he astounded by the ultra-futuristio exhibition that Chicago would develop if it possessed the marvelous and ingenious "Utopian" inventions? Rather a startling dream, isn't it? A dream, a soap-bubble, which is supported only by that tiny, insignificant word, "IF". Nevertheless, even though it ie entirely impossible for Chicago to possess a Santa Scientia in time for 1933, it is certan that some time in the future there *will* exist a true utopia, and then the world will actually begin to LIVE, to develop that ultimate in all arts and sciencee!

For that reaeon I wish that I poesessed a time-machine, so thst I might catch a few glimpses of the Utopia of the Future. "But wishes are fntile," my mind tells me. "Go, think, work, and construct a Time-Machine, and then . . . ."

Back to Earth. All in all, the Jnne issue of *WONDER STORIES* was perfect. Every story in this issue was excellent, with the "Utopian" story at the peak, and that marvelous tale, "In the Spacesphere," a very close second. More issues like this one, and we shall have no need of any other Time-Machine than *WONDER STORIES!*

Long live Science Fiction, the Spice of Life!

Robert Behrik,
1514 W. 18th Street,
Chicago, Illinois.

(Mr. Behrik's idea strikes us as a resl inspiration. We see no reason why he should not approach the commission handling the details of the World Fair and put his proposal to them. If worked out properly it might well become one of the most startling attractions of the entire program. You have our enthusiastic support, Mr. Behrik, go to it!—*Editor*)

A Contracting Universe

Editor, WONDER STORIES:

I am not egotistical enough to imagine myself a scientiet, hut I wonld like to offer my solution to Mr. P. Schuyler Miller's perplexing prohlem.

Einstein and others have propounded new ideas which might have revolutionized classical physics. One is almost forced to believe that these new concepts have destroyed the physical universe so far as an ability to picture it physically is concerned.

Probably a fairly accurate conception of the world would be more readily achieved if we admitted at the outset that we have a psychological rather than a physical world to picture.

It was long ago recognized that an infinite universe cannot be reconciled with Newton's law of gravitation. If this were true then there would be infinite mass in all directions with the result that an indeterminate force would attract every celestial body from all directions.

A stable system like a solar system could not exist. If we imagine an infinite space with an infinite number of stars we could well wonder why these celestial bodies did not scatter throughout eternity.

Einstein aesumed the universe to have a finite volume although it was unbounded. However the circumference of a circle has no end, but it has a definite length. This is so because it is cnrved. The earth's surfsce is endless but definite in area. Since no human can conceive of spherical space it can only be represented mathematically.

Einstein propounded the idea of a curvature to the universe—thus a boundless universe which is limited.

For anyone who may he interested, my source of informstion ie, "Fonndations of the Universe," by M. Luckiesh, published by D. Van Nostrand Company, New York.

Richard A. D. Evans,
809 Converse Ave.,
Springfield, Ill.

(While we agree in the main with Mr. Evan's views, he omits one point. The universe might well he drawn together by an infinite force, or it might conversely be ecattered in all directions, but the accomplishment of this might tske millions of years. We must remember that msn has been observing the heavens with exactnese for only a few hundred years, and his exact data on the far off stars dates perhaps for only 100 yeare. We therefore have only an infinitesimal base on which to determine whst might have been going on for millions upon millions of years; and what we have been able to determine is practically of no cosmic consequence.

The fsstest moving nebula travels so we learn at approximately 12,000 miles a second, or in a year 1/15 of a light year. Now this and other stars may be npward of 100,000,000 light years away. It would then take 1,500,000,000 years for that nebula to reach ue, assuming that the solar system is the centśr upon which the whole universe may be contracting. How therefore can we determine with our hundred yeare or so of obeervation that this is or is not occurring? Or, that the universe is not exploding—as present day astronomers believe—that all heavenly bodies are not rushing away from a center? We must be patient for another 100,000 years in order to gather real data upon which to judge these cosmic events.—*Editor*)

Science Fiction Movies

Editor, WONDER STORIES:

I suppose I am not the only reader of science fiction who has often wondered why so few motion pictnres are based on this popular type of literature. While the films have gone in heavily for Weetern, love and crime stories, they have ignored almost entirely the rich and fertile field of science fiction. Of course, there have been a few notable exceptions, such as "The Lost World," "Metropolis," and "By Rocket to the Moon". But these worthwhile efforts were buried in the deluge of hooey from Hollywood.

The indifference of movie producers to science fiction is probahly due to a mietaken idea on their part that the public does not care for science fiction.

(*Continued on Page* 280)

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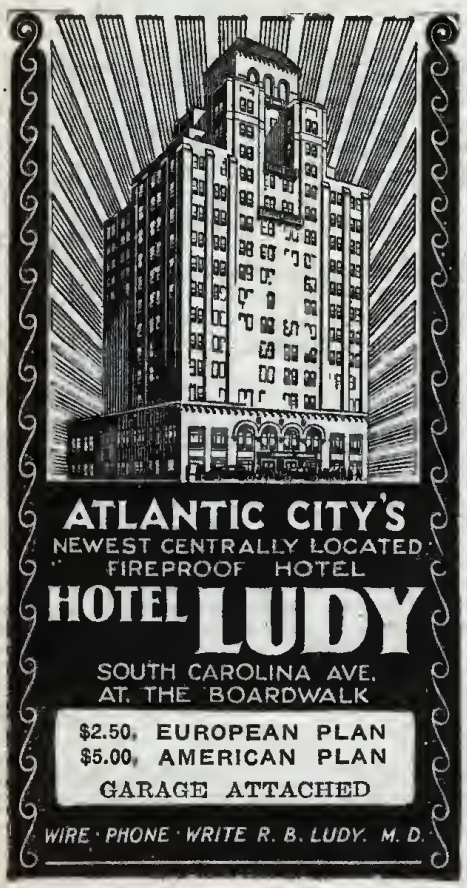

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Don't fail to turn to page 284 of this issue and read the important subscription announcement.

THE READER SPEAKS

(*Continued from Page* 278)

Perhaps if a sufficient number of readers of *WONDER STORIES* wrote to various film companies asking for more science-fantasy pictures, their request would be heeded. Some time ago, I sent a letter along that line to Carl Laemmle, President of Universal Pictures, suggesting that a good talkie might be made from Mrs. Shelley's "Frankenstein," a widely-known story of the science-fiction type. Now I understand that Universal will do "Frankenstein" in a few months. Here's hoping it will be followed by more of the same kind.

Allen Glasser,
1610 University Ave.,
New York, N. Y.

(Mr. Glasser's thought is an excellent one. There is no reason why well-staged and thrilling stories of future science should not find a real place in the film schedules of all companies. Perhaps the next few years will show an avalanche of such films. That is the way America does things.—*Editor*)

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Blue Nothingness

Editor, WONDER STORIES:

I suppose that I am a little late to comment on the April issue, but I have just finished reading it.

In "The Emperor of the Stars" the authors state that the stars of the strange universe into which their heroes stumbled were dark and that space was blue. I can picture dark stars, but fancy *blue* space! All done up in pink ribbons I suppose. How can space, NOTHINGNESS, have color? An excellent story nevertheless.

"An Adventure In Futurity" by Clark Ashton Smith brings up that much disputed possibility of time-travelling. Suppose Hugh had brought the twenty dollar gold piece that Kronous showed him back to his own time. Then the SAME TWENTY DOLLAR GOLD PIECE would be simultaneously in Hugh's possession and in the possession of the one to whom it rightfully belonged in 1930. Scientists state that two bodies cannot occupy the same space at the same time, but it is equally true that the same

hody cannot occupy more than one space at the same time.

It's things like this that cause me to think that if the time-travelling exponents are right, then I'm bats. Clever and original writers should be privileged to use time-travelling machines in their stories, however, because of the interesting adventures which their heroes may have in some future time.

"The Sargasso Monster" turned out to be about what I expected of Edsel Newton—very poor indeed.

Hamilton is at his best in "The Man Who Evolved", a very thought-provoking story.

It has been said that there are only about five or six real original plots for stories, and that all stories are only rehashed versions of these half-dozen types. If ever a machine is invented to automatically rehaeh these plots into new stories (and there prohably will be), then I would expect the machine-made story to read something like the usual Hamilton product—with its deadly monotony of style.

While I sympathize with Leslie F. Stone in her fight to uphold the importance of women, yet I feel that she has overdone the thing in "The Conquest of Gola". Here men are the ascendant sex. While men may love, respect, hate or deteet women; they do not usually regard women as ineffectual creatures, to sympathize for or deepise, as the case may he, as a hunch of weaklings. Yet this is the ahnormal viewpoint which the Golan women took toward their men, hecanse they happened to be the weaker sex.

I wish you would cease to waste valuable space with "hug" stories. I detest them. Granted that hig bugs or insects are possihle, there is no science in them. I refer, of course, to "Great Green Things", but it has been your policy lately to print a similar story in each issue.

Lastly, I add my voice to those of many others and request that you have more illnstrations hy Panl—two to every story if you wish. We simply can't get too many.

Harry R. Pancoast,
306 West 28th St.,
Wilmington, Delaware.

(Mr. Pancoast evidently overlooked the vital part of the Schachner and Zagat theme. Their idea was that in the new universe all phenomena were different in their nature. In our own universe, space is black hecause the ahsence of light conveys an impression to our optic nerves that we have interpreted as hlackness. There is no reason why in the topsy-turvy universe piotured, space might not have intrinsic properties of its own that convey impressions of other colors.

Naturally the theme our authors took was a very difficult one to carry out to its hitterly logical end, but from reader comments they did a marvelous joh. —*Editor*)

Villain is a Victim

Editor, WONDER STORIES:

When yon used to publish yonr Science Fiction in "Science and Invention" I always would read the fiction hefore turning to the more serious part of the magazine. Later I hecame a charter suhscriber to "Amazing Stories" and then *SCIENCE WONDER STORIES*. Hitherto I have remained silent because I have felt that your policy was balanced as could he expected, hut the frequency in which you puhlish time stories induces me to let off a lot of steam.

Some of these storiee, in which the heroes travel into the past without actually heing ahle to affect the past in any way are quite convincing, hut when, as in "Worlds to Barter" in the May issue, they present one time affecting another, they do so in a sloppy manner. For if we could influence the past or the future, would it continue to remain past or future? In "Worlds to Barter," all the people of the twenty-first century would have had to have done was to pay no attention to the men of the future as they could not harm them because to do so would prevent their birth.

It has heen pointed out in "The Reader Speaks" that if a man could influence the past, he conld, by killing his ancestor prevent his birth. Similarly, if we could perceive events of the future we could prevent calamities hy eliminating the causes in the present.

Thus, if we knew, hy traveling into the futnre that a certain person would cause a tremendous world calamity we could prevent one of that person's ancestors from reprodncing, thus preventing the calamity. Then what we perceived as future would not be the future. I do not wish to state that time travel is in my opin-

(*Continued on Page* 282)

RUDOLPH L. DUNCAN, President, RCA Institutes, Inc.; Member, Institute of Radio Engineers; Member, Radio Club of America; Member, Veteran Wireless Operators Association; Captain, SCR, United States Army.

A Radio message

To men who are looking ahead!

by R. L. DUNCAN

ONLY a few men will read this message . . . but they will be the type of men in whom I am personally interested. For such men . . . I want to open the door to thorough training in radio. And the coupon below is the first step!

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THE READER SPEAKS

(*Continued from Page* 281)

ion impossible but I do feel that insulating people against the effects of time is not sufficiently explained by the authors of these time stories.

I also fail to understand the popularity of Schachner and Zagat. Their plots are interesting and well told hut they never seem to tire of digging the melodrama villain out of discard and nsing him in their stories. Stories of the future should heware of nineteenth century faults. I never can read one of their stories withont feeling that the villain is victim of propaganda and really a nice fellow at heart. It sounds like a description of a German by a 1918 propagandist.

There are many things in your magazine that I dislike hut I think the Readers' letters are about the worst (mine included). One author will go into a streak of genius and wear out his imagination developing the story, have real situations, work in the science logically yet naturally, put in natural drama and comedv relief, and hring the whole to a fitting climax; and in a couple of months you will find in "The Reader Speaks" letters claiming he is too hizarre, etc. or else no mention at all.

Another will take his people to some planet in some fashion he fails to explain and have them meet people or beasts which he fails to account for and suddenly bring ont a marvelously beautiful girl with whom the hero falls in love, a love which she of course reciprocates, and then take them through a series of impossihle adventures. (Why are heroines all beautifnl? Most beautifnl girls are so insipid, when you know them. I have known many cases of love at first sight all of which developed into indifference at continued absence.) That sort of story is disgusting. Yet your letters all say what fine stories they are.

"Utopia Island" is almost a bit too much like "Electropolis". Both are very interesting however although for some reason they do not have the charm of Gawain Edwards. Could it be lost in the translation?

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I HAVE A SWEETHEART FOR YOU

BE sure to read the interesting announcement on page 284 of this issue—it's well worth spending a few minutes to read it.

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If the world follows the trend proposed by most of your authors, I pity it. They all show a decided lack of balance. Most them go into great detail on the mechanical side of it but forget about the social side. Those that go into finance all imagine a system similar to our own. When we consider that money as we know it today was non-existent five centuries ago, I personally doubt if the world will endure a fluctuating standard the rest of this century. But the social side is almost abandoned. Lovina Johnson's letter seemed to express a sentiment which we hear too often today.

The supposed disintegration of the home is I feel due to circumstances of environment rather than lack of ideals. Change the environment and your problem will vanish. I feel that this is true of crime also. Certainly we all violate laws or morals because we feel it is to our advantage to do so. If we all felt that we would lose by so doing I doubt if there would be any social problems except mentally diseased and that is only a problem of courage.

Both the Freudian and behaviorist schools claim that environment is a most important factor. Hereditary traits are like clay and environment the sculptor. We can raise almost perfect humans if we bent our effort along this line with the same energy we give to Physics and its associated exact sciences.

Then also what about the aesthetic nature of the future? How will all this promised uniformity effect us? Will we cease to have theaters, concerts, motion pictures (I hope so on that last). Will television supplant them? What about art? Dr. Keller has taken up the physical side but recreation is merely touched on.

Orrick A. Childs,
248 S. 44th St.,
Philadelphia, Pa.

(It's true, as Mr. Childs points out that we all seek in a story for what we personally are hungry for. One man wants to be a hero and to read an heroic story and conquer great difficulties; another wants just pure adventure and to travel in a story to distant worlds; another wants to find some ideas and thonghts to stimulate his mind. To each of these aspirations, science fiction offers food.

With regard to contests we refer onr readers to the "Interplanetary Plot Contest" in the Spring 1931 Wonder Stories Quarterly which is now on the newsstands. We believe it will offer more real interest and enjoyment, as well as constructive opportunities to our readers than anything else we have offered.—*Editor*)

Ballast on the Moon Journey

Editor, WONDER STORIES:

I am not going to write a long letter but I do wish to say that *WONDER STORIES* has the best stories that I have ever read with one or two exceptions such as "Time Journeys" and "Synthetic Men" and the like.

In the April number I think I would rate the stories as follows:

Emperor of the Stars—very good.
The Retnrn from Jupiter—very good.
An Adventnre in Fnturity—fair.
The Sargasso Monster—fair.
The Man who Evolved—very fine, but extraordinary.
The Conqnest of Gola—fair.
Great Green Things—good.

I reading your stories I become almost hypnotized with interest, hating to go to bed while reading these most unusnal and gripping stories.

I will not take up mueh more of yonr time than to tell you that all my short life (16 years) I have had a wild desire to go to Mars or the Moon or any other foreign planets. Reading yonr most exciting and magazine has created a desire that is of long standing, and if yon *ever* know of any stray trips of this nstnre that might need about 140 lbs. of ballast for no good reason, why please let me know, and I will pack up and join yon no matter where the journey is to be headed for.

Hoping to hear from you in the near fnture (by thought waves, radio, television or seeing this in print) I remain as ever a trne and loyal *WONDER STORIES* reader.

Van Horn Fabricins,
477 Central Ave.,
Orange, N. J.

(Unfortunately for the thonsands of enthnsiasts, a space flight will no have need of hallast. On the contrary, on the first dozen or so flights, each pound

(*Continued on Page* 284)

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The sexual embrace
Warning to young men
Secrets of greater delight
Dangerous diseases
Secrets of sex attraction
Hygienic precautions
Anatomy and physiology
The reproductive organs
What every women wants
Education of the family
Sex health and prevention

Girls— Don't Marry before you know all this—

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How to manage the honeymoon
What liberties to allow a lover
Secrets of the wedding night
Beauty diets and baths
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How to attract desirable men
How to manage men
How to know if he loves you
How to acquire bodily grace and beauty
How to beautify face, hands, hair, teeth and feet
How to acquire charm
How to dress attractively
Intimate personal hygiene
How to pick a husband

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THE READER SPEAKS

(*Continued from Page* 283)

of weight taken along, whether of man or equipment must have a definite use. The crew will all be composed of men whose presence on the ship is absolutely necessary to the journey's success.

Only when the technique of space flying has been perfected will there come journeys when enthusiasts will have an opportunity to taste the glories and the thrills of the infinite spaces. But Mr. Fabricius' spirit is splendid. It is the enthusiasm of young men of today that will build the space flyer in the next generation.—*Editor*)

Wonders of the Machine Age

(*Continued from Page* 151)

I have given these few examples only to show why people should keep a level head in these days of stress and not become unduly excited about the future. The Machine Age and Applied Science, far from destroying humanity, is now, and will forever be, humanity's servant.

I will go on record and state that, with very few exceptions, practically all *useful* inventions and *useful* machines, so far invented, have not only helped the human race socially, but HAVE BEEN THE DIRECT CAUSE OF KEEPING MILLIONS OF PEOPLE EMPLOYED. It is the common talk of the misinformed, as well of the so-called informed classes, that the present unemployment situation is due to the machine. The argument runs something as follows:

A factory gives employment to a thousand men. A new invention is made and new machinery is installed in this plant, which then does twice as much work with half the men. Half of the men are thrown out of employment; consequently, the new machine has been destructive, in that it put 500 men out of work.

This argument is pure foolishness; for, if its proponent stopped to think about it, he could reason that the argument of necessity was wrong. There is not a single useful machine or invention which has not given actual employment in the course of time, and actually created employment where none existed before.

In *Collier's, the National Weekly*, lately, was a most interesting article which I heartily recommend to all. It is entitled *"The Job Making Machine"*, by John T. Flynn. The author takes a single machine, the automobile, and cites the following facts, which are not fancy or hearsay, but can be easily proved from reports of the Department of Commerce, and other industrial bodies, for all who care to look into the facts:

There are over a million men employed in the production of automobiles and their components: 427,000 automobile factory workers; 250,000 automobile parts workers; 135,000 tire workers; 72,000 in blast furnaces and steel mills; 15,000 in the production of copper and other metals; 18,000 lumbermen and wood workers; 76,000 in the production of textiles, glass and other materials; 7,000 producing coal and power. There are 170,000 making and marketing automobile accessories.

Then, too, there are 370,000 dealers and salesmen; 420,000 garage and service men; 650,000 chauffeurs and cabmen; 1,500,000 truck and bus drivers.

The total of those who derive their employment from the automotive industry and automotive operation reaches *four and a half millions;* an increase of 1,275,000 in the past five years! The automobiles use more steel than any other industry—more than the United States produced thirty years ago; their tires use more cotton than was used for all purposes thirty years ago. There are 60,000 men employed in the production of gasoline; 125,000 in road building and maintenance. On the railroads, 90,000 are employed through the transportation of motor cars. Vast amounts of building construction have been brought about, by the extended radius of travel which the automobile has given to the public.

"I have chosen the automobile industry," says Mr. Flynn, "to illustrate what is going on in industry as a result of the machine; because its effects are visible on a large scale. But what is true of the automo-

Wonders of the Machine Age

bile is true in a smaller way of many other industries."

Now then, the automohile is only one machine; hut the same caee could be huilt up for any other useful machine, be it the steam engine, the printing press, the radio or thousands of othere.

It is perfectly true that a new and revolutionary invention or a labor-saving machine may throw out of employment, TEMPORARILY, some people. No one deniee this; you cannot have revolutions without a temporary loss of some kind. Bnt the point is, that the 500 men thrown out of employment, whom I mentioned above, are not going to he out of employment forever; they will find other johs, *probably created, directly or indirectly, by the very machine that threw them out of work originally.* Our present civilization is so interdependent, as a little thought on the suhject must convince the most ekeptical, that in the final analysis the Machine and Applied Science will make employment for them.

What most people are apt to forget is that there were unemployment crises long before there was a Machine Age; and that there have heen unemployment cycles from the earliest recorded civilization down to the present day. More than 150 years ago, there was certainly no Machine Age; yet there were world-wide depressions and unemployment cycles then, just as we have them today.

Famines, pestilence and other scourges were the usual thing long before the Machine Age, when there was no machine to put the blame on. Today, thanks to the Machine Age, we no longer have country-wide faminee of the severity of the past; and thanks to acience, we no longer have the scourges and pestilences that our ancestors had to contend with. Quick communication by rail, water, and air, tends to do away with both acute famine and widespread diseases.

It is admitted, as I said before, that new machinee, new inventions, may *temporarily* throw people out of employment; hut, within a few years, this situation rectifies itself to the benefit of all concerned. It is even conceivable that the Machine Age in the end will do away with hnsinees cycles. However, since business flnctuations are caused principally by human nature, it may take centuries, and indeed, thousands of years, before the millenium is reached—if ever.

All nature runs in cycles. Just as the snn has its snnspots in a regular cycle; just ae the earth has lte cycles of earthquakes and cycles of drought; just so economics will have its cycles—ite ups and downs. There are many causes to which the present unemployment situation is attributable; for they are world-wide and are just as acute in the non-mechanized countries as they are in the more industrial ones. We need not go into these causes, because I really helieve that no one knowe all of them.

Certainly, the Machine Age is not an important cause and, if we did not have our machine civilization, it is quite certain that the depression would he far more severe than it is today. It is certain that the cycle would, as it has done in past ages, run for a longer period than it does today.

The reason is, that the cauese of all of our troubles lie not in the machine, hut are really found in human nature. When people start to hoard their money, when they are afraid of their own shadow, and when they tremble at the future for no reason at all, the machine certainly cannot he hlamed.

For my part, I have always felt that the present depression is pnrely psychological rather than physical, and in the last analysis, it probably will be found so.

What has all of this got to do with SCIENCE FICTION? Just this:

Science fiction is hased npon the progress of science; THAT IS ITS VERY FOUNDATION. Withont it, there could he no science fiction.

On the other hand, science fiction is supposed to portray and mirror the future as reasonahly as it is possible to do from onr present perspective.

If you admit that Machines and Science are all wrong, and that they are destroying humanity, then there should he no euch thing as science fiction; and it would he useless to preach the gospel of ecience.

I feel most strongly on the suhject because during recent months, we have received a numher of science

(*Continued on Page* 286)

CLASSIFIED ADVERTISEMENTS

Advertisements in this section are inserted at the cost of ten cents per word for each insertion—name, initial and address each count as one word. Cash should accompany all classified advertisements unless placed by a recognized advertising agency. No less than ten words are accepted. Advertising for the August 1931 issue should be received not later than June 7th.

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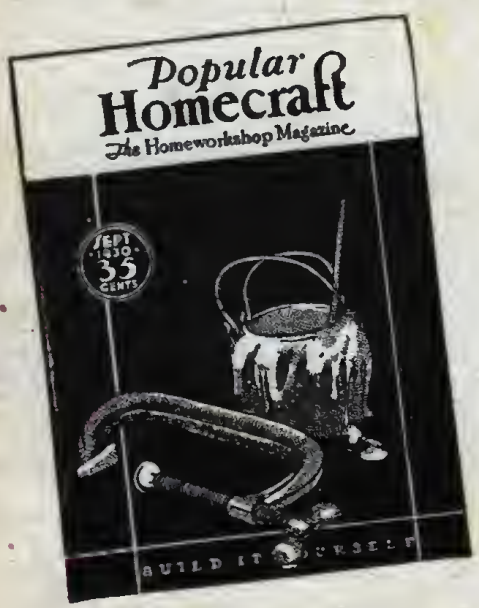

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Wonders of the Machine Age

(*Continued from Page* 285)

fiction stories, probably fostered by the nnemployment atmosphere, which I have rejected because they distorted the facts and, in many cases, were pure out-and-out propaganda against the Machine Age.

Some of the authors, who should know hetter, maintained in their stories that, little by little, the machinee and science are becoming a Frankenstein monster, and finally humanity will rise in revolt and destroy all the machines, and go back to the Middle Ages. The usnal underlying plot is that, because of capitalistic concentration of wealth, the machines will be ultimately controlled by a few powerful men, who will enslave the entire world to the detriment of humanity.

I have gone to great lengtb, in my opening paragrapbs, to show that this situation bas never arisen as yet; and, from past experience, we know that it cannot arise. And it is for this reason that WONDER STORIES will not, in the futnre, pnblish propaganda of this sort which tends to inflame an nnreasoning public against scientific progress, against nseful machines, and against inventions in general.

It is conceivable, and indeed is proved by history, that nations are born, grow to maturity, and die. This hae happened throngh our entire recorded history. It probably will repeat itself indefinitely in the future. Which nations will snrvive, we bave no means of foretelling. Of course, wben it happens, the Machine Age will be blamed again, and tbe authors of the assertione will be blissfnlly ignorant of the fact that other nations, living alongside of them, prosper and grow while living in the self-same Machine Age.

It is, indeed, quite within tbe bonnds of possibility that humanity will at some fnture time find itself back in the Middle Ages—or worse. This also bas happened in the past, and may conceivahly happen again. If it does happen, the canses will probably be dne to great cataclysms, sucb as floods and earthqnakes or wars, but the Machine Age will have very little or nothing to do witb it.

Hnmanity will have its ups and downs in the fnture ae it bad in the past.

I am, however, of tbe firm opinion that, as the past 150 years bave shown, because of Science and the Macbine Age, the ups and downs of humanity will be less severe than they were before the Machine Age; and tbat is the reason why I have no patience with those who tend to preacb tbe evils of the Macbine Age, which, in the long run, are non-exietent.

BOOK REVIEW

BY ROCKET TO THE MOON by Otto Willi Gail. 300 pages, illustrated, stiff cloth covers. Size 5¾ x 8½. Published by Sears Publishing Company, New York. Price $2.50.

The interplanetary stories of Otto Willi Gail are well known to Wonder Stories readers—"The Shot Into Infinity" appearing in the Fall 1929 and "The Stone from the Moon" in the Spring 1930 issues of the Quarterly.

The present volnme is written in the same style as those mentioned. The story is simple, it concerns the introduction of a Detroit newspaper reporter into his crew of space flyers, to the Moon, by one Hans Hardt. Tommy Bighead, our reporter, being deprived of the privilege of a passenger, naturally stows away. The scenes on the journey, the experiences of tbe crew, the discovery of a lunar satellite, all are written in the realistic style for which Gail is well known. Facts are never distorted by bim, no impossible lnnar creatures, no heavenly paradise awaits our explorers bnt a grim struggle with pitless natnre.

The style is easy and rapid, and the story movea alony with facility. The works of Gail are reminiscent of those of Verne, and are bound to become popular, for tbey serve not only to clarify tbe essentials of the space flight problem but also to give some of its possibilities for adventure, romance and glory unequalled by any other human activity.

CREATION BY EVOLUTION—A Symposium, edited by Frances Mason. 400 pages, stiff cloth covers, illustrated. Size 5x8½. Published by Macmillan Company, New York. Price $2.50.

The existence of a symposium such as this, on the vital topic of evolution, should put an end to all loose discussion of so pertinent a subject—loose, that is, in the sense of being uninformed and based on conclusions hastily drawn from information imperfectly assimilated. There has been a great need of a volume of this kind, for the average layman knows nothing of the wealth of scientific research and justification for the theory of creation by evolution. An amazing number of reasonably well educated persons sum up the vast idea of progressive selection with the pat definition that "Man is descended from the monkey", a phrase as misleading as it is stereotyped.

That evolution is still a controversial subject the authors have taken into account. They have attempted to reconcile it with existing beliefs, a rather futile task. More important, however, every side of the question is presented fully, clearly, and in interesting and logical sequence.

The factors in the theory of evolution, which has growth from the egg to maturity reviews the history it, are, roughly, four: the circumstances of heredity, variation, selection and segregation. This generous volume contains articles on all four phases on evolution as we may see it occurring about us; on vestigial organs in man and the lower animals; the factor of segregation is taken up in an article on the geographical distribution of animals, which contains some surprising facts, one of which, for instance, is that camels once roamed over the continent of North America. Also, the intriguing theory of "recapitulation", which embodies the idea that every animal, in its growth from the egg to maturity reviews the history of the race, is covered in some detail.

Each article is complete in itself, and the book may be opened at any point, to be read with satisfaction. Such authorities as Henry Fairfield Osborn, David Starr Jordan and Julian Huxley have contributed to this collection of essays on the idea of the survival of the fittest, treated in all its ramifications.

UNDER THE NORTH POLE by Sir Hubert Wilkins, 340 pages, illustrated. Stiff cloth covers. Size 5¼ x 8¾. Published by Brewer, Warren and Putnam, New York. Price $3.00.

With Captain Wilkins ready to start out on what may be the most exciting exploration of the decade, a book such as the present, which presents the background of the expedition, the personnel of the submarine and the aims of the cruise, is very timely.

The life history of Wilkins, which composes one part of this volume, is in itself a wonder story. The struggles of the young Australian to obtain an education against great difficulties, his turning toward aviation during its early years, his successive conquests of the Poles, although recounted by him with characteristic modesty, presents a picture exciting as it is epochal.

His story is filled with the life-long attempt to find a means of predicting weather conditions for man, so that he need not be continually at the mercy of the elements. Wilkins' own story of his youth—of the sufferings of his family and fellowmen in Australia during a prolonged drought served to vividly impress upon his mind what must be done.

The present expedition of the submarine *Nautilus* therefore is a fitting culmination of his work in Polar exploration which has lasted for over fifteen years.

With calm lucidity, that only intensifies the drama of it, Wilkins recounts the stories of his earlier expeditions in the Arctic and Antarctic. Yet from the lessons of them he believes that his present voyage stands a good chance of success. As he states, he is prepared for most every eventuality, although the unforeseen may suddenly emerge from the tides of chance to bring disaster.

The book, which contains also short sketches of the personnel of the crew should be read by every lover of adventure and daring. The section devoted to the "History of the Idea" and written by Vilhjalmur Stefansson, is especially thrilling.

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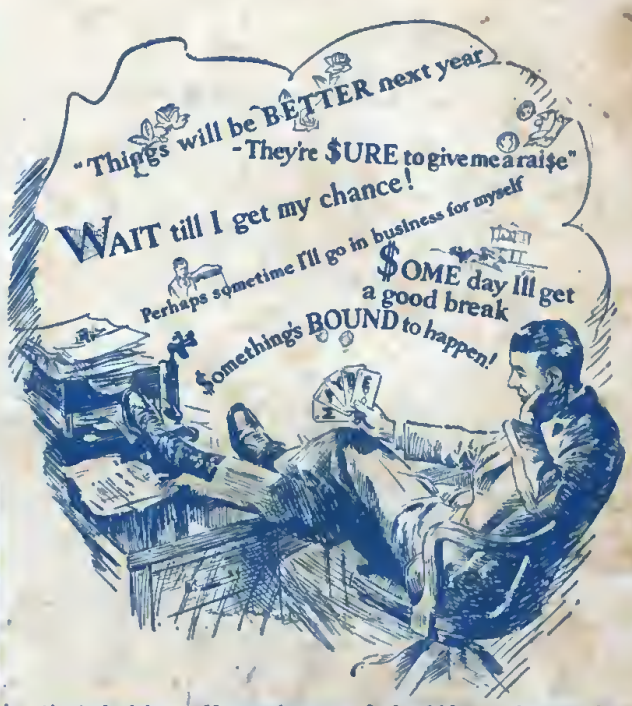
The Gambler

He gambles that a "lucky break" will come to him in the course of time



MOST men live in the HOPE that their "lucky break" will coms TOMORROW or NEXT WEEK or NEXT YEAR.

They gamhle that FATE, some day, some way, will make them rich! They risk their whole lives on what may COME to them in the course of TIME.

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And as each year passes your CHANCE to amonnt to anything becomes slimmer and slimmer.

Yon get discouraged. You begin to feel that fate is AGAINST you. You complain secretly ahout your ill luck. Perhaps you hide your shortcomings hehind a whole flock of easy EXCUSES.

But the hard, cold world doesn't care ahout you.

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You cannot COUNT on luck or fate or circumstances. If you could, EVERYBODY would get rich at some time or other.

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"HEY! Get up and give a real pianist a chance!"

One of the Boys Shouted

. . . but when I started to play they didn't want me to stop

BEFORE our school party at Helen White's was many minutes old a funny thing happened.

I was chatting with some of the boys when I heard my name called out across the room.

"Jim, you're a red-hot 'talkie' fan—can you hum the theme song that's so popular from Gloria Swanson's latest picture? Helen wants to know how it goes and I can't remember it to save my life."

"Sure, Harry, I know the one you mean—wait just a minute and I'll go over and play it for you."

"Play it!" exclaimed Harry. "Why we'd never be able to recognize the tune. Whistle it if you can't hum."

"Oh, it will sound much better on the piano," I replied as I sat down and began to finger the keys.

The Guests Get Nervous

"Never mind, Jim," said Helen apologetically, "forget the tune, besides we're all ready to start dancing."

"Hey, get up and give a real pianist a chance," chirped in a male voice.

That was my signal to let loose. Without paying further attention to their wise cracks, I broke into the theme song that they had requested.

You could have heard a pin drop. I only wish I could have seen their faces, for I knew that I had given them quite a surprise.

They Want More

"Keep it up—that's great," shouted Harry as I finished.

"Yes, please don't stop," pleaded Helen.

"I thought you were in a hurry to dance," I replied.

"You bet we are—and we want you to play for us."

No second invitation was needed. I played every number that they placed before me and if they had had their say I would have been playing until morning. But finally I had to beg for an intermission. Then the third degree began.

"Put one over on us, didn't you, Jim?" said Harry. "You're certainly the last person at the party I thought could play. How about letting us in on the secret?"

My Story

"Have you ever heard of the U. S. School of Music?" I asked.

A few of my friends nodded. "That's a correspondence school, isn't it?" they exclaimed.

"Exactly," I replied. "They have a surprisingly easy method through which you can learn to play any instrument by mail in just a few months without a teacher."

"It doesn't seem possible," someone said.

"That's what I thought too. But the Free Demonstration lesson which they mailed me on request so opened my eyes that I sent for the complete course.

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Then I told them how I had always longed to sit down at the piano and play some old sweet song—or perhaps a beautiful classic, a bit from an opera or the latest syncopation — how when I heard others playing I envied them so that it almost spoiled the pleasure of the music for me—how I was jealous because they could entertain their friends and family.

"Music was always one of those never-to-come-true dreams until the U. S. School came to my rescue. Believe me, no more heavy looking-on for me."

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TEN VOLUMES

COMMENTARY

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The literary perfection of his work is undeniable . . . .
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Professor F. C. deSumichrast,
Harvard University

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